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# THESIS

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NUCLEATE POOL BOILING PERFORMANCE OF SMOOTH  
AND FINNED TUBE BUNDLES IN R-113 AND  
R-114/OIL MIXTURES

by

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June 1989

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Nucleate Pool Boiling Performance of Smooth and Finned  
Tube Bundles in R-113 and R-114/Oil Mixtures

by

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# ABSTRACT

Heat-transfer measurements were made for boiling of refrigerants and refrigerant/oil mixtures from smooth and finned tube bundles. The bundles contained 15 heated tubes arranged in an equilateral triangular pitch of 19.1 mm. The outside diameter of the smooth tubes (15.8 mm) was equal to the diameter to the tip of the fins of the finned tubes. The smooth tube bundle was tested in pure R-113 with varying surface "histories" as well as with pure R-114 and R-114/oil mixtures. The finned tube bundle was tested in pure R-114 and R-114/oil mixtures. Oil concentrations used were 1, 2, 3, 6, and 10% by mass.

The majority of data sets were taken with decreasing heat flux where hysteresis is normally not seen as found in the present experiments when using the simulation heaters. The addition of oil to the smooth tube bundle showed heat-transfer performance to increase over that measured with pure R-114 up to a 6% concentration. The maximum enhancement in heat-transfer performance of the smooth tube bundle was around 44% with R-114 and 2% oil. Performance was only slightly degraded from the case of pure R-114 at the maximum oil concentration of 10%. Heat-transfer performance was more than doubled for the finned tubes when compared to that for the smooth tubes. Addition of oil to a

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## TABLE OF CONTENTS

I.	INTRODUCTION -----	1
A.	BACKGROUND -----	1
B.	OBJECTIVES -----	3
II.	LITERATURE SURVEY -----	5
A.	GENERAL INTRODUCTION -----	5
B.	SINGLE-TUBE STUDIES -----	6
C.	TUBE BUNDLE STUDIES -----	13
III.	EXPERIMENTAL APPARATUS -----	22
A.	TEST APPARATUS OVERVIEW -----	22
B.	DATA ACQUISITION SYSTEM/INSTRUMENTATION -----	26
C.	ANCILLARY EQUIPMENT -----	27
IV.	EXPERIMENTAL PROCEDURES -----	46
A.	MANUFACTURE OF INSTRUMENTED EVAPORATOR TUBES -----	46
B.	INSTALLATION OF EVAPORATOR TUBES IN THE TUBE SUPPORT BLOCK -----	47
C.	SYSTEM EVACUATION -----	48
D.	FREON FILL -----	48
E.	FREON REMOVAL -----	49
F.	GENERAL OPERATION -----	50
G.	SURFACE AGING -----	51
H.	OIL ADDITION -----	52
I.	DATA-REDUCTION PROCEDURES -----	52

V.	RESULTS AND DISCUSSION -----	55
A.	GENERAL COMMENTS/LAYOUT -----	55
B.	R-113 BOILING FROM THE SMOOTH-TUBE BUNDLE ---	57
C.	R-114 BOILING FROM THE SMOOTH-TUBE BUNDLE (SURFACE PREPARATION D) -----	68
D.	BOILING FROM R-114/OIL MIXTURES ON THE SMOOTH-TUBE BUNDLE -----	70
E.	FINNED TUBE BUNDLES, GENERAL COMMENTS -----	72
F.	BOILING FROM R-114 AND R-114/OIL MIXTURES ON THE FINNED-TUBE BUNDLES -----	74
VI.	CONCLUSIONS AND RECOMMENDATIONS -----	141
A.	CONCLUSIONS -----	141
B.	RECOMMENDATIONS -----	142
APPENDIX A:	DATA REDUCTION PROGRAM -----	143
APPENDIX B:	SAMPLE CALCULATION -----	171
APPENDIX C:	UNCERTAINTY ANALYSIS -----	180
APPENDIX D:	TABULATED RESULTS -----	183
	LIST OF REFERENCES -----	606
	INITIAL DISTRIBUTION LIST -----	609

## LIST OF TABLES

2.1	FREE CONVECTION HEAT TRANSFER ON A HORIZONTAL CIRCULAR CYLINDER; CONSTANTS IN EQUATION 2.1 ----	19
3.1	COMPUTER/DATA ACQUISITION ASSIGNMENT -----	28
5.1	DATA SETS FOR THE SMOOTH-TUBE BUNDLE IN R-113 ---	78
5.2	DATA SETS FOR THE SMOOTH-TUBE BUNDLE IN PURE R-114 AND R-114/OIL MIXTURES -----	79
5.3	DATA SETS FOR THE FINNED-TUBE BUNDLE IN PURE R-114 AND R-114/OIL MIXTURES -----	80
5.4	BOILING HEAT-TRANSFER COEFFICIENTS AND ENHANCEMENT RATIOS FOR SMOOTH TUBE BUNDLE IN R-114 AT A HEAT FLUX OF $30 \text{ kW/m}^2$ -----	81
5.5	WALL-TEMPERATURES INDICATED BY THE SIX THERMOCOUPLES ON EACH OF THE FIVE INSTRUMENTED FINNED TUBES; HEAT FLUX = $95 \text{ kW/m}^2$ -----	81
5.6	BOILING HEAT TRANSFER COEFFICIENTS AND ENHANCEMENT RATIOS FOR FINNED-TUBE BUNDLE IN R-114 AT A HEAT FLUX OF $30 \text{ kW/m}^2$ -----	82
C.1	UNCERTAINTY ANALYSIS RESULTS -----	182

## LIST OF FIGURES

2.1	Typical Boiling Curve for Refrigerants -----	20
2.2	Surface-Tension Variation of R-114/Oil Mixtures Measured at a Temperature of 10 C -----	21
3.1	Schematic View of the Apparatus -----	30
3.2	Evaporator/Condenser Schematic -----	31
3.3	Sectional View of Condenser Shroud -----	32
3.4	Sectional Schematic of Apparatus Showing Condensate Return Path -----	33
3.5	Photograph of 208 V, 75-A, Variable Transformers Used to Control Heat Addition -----	34
3.6	Front View of Evaporator -----	35
3.7	Side View of Evaporator -----	36
3.8	Rear View of Evaporator -----	37
3.9	Sectional View of Evaporator Showing Tube Bundle, Dummy Tube Rack and Simulation Heaters --	38
3.10	Photograph of Dummy Tube Rack -----	39
3.11	Photograph of Tube-Bundle Support Block without Instrumented and Active Tubes -----	40
3.12	Thermocouple Locations on an Instrumented Smooth Boiling Tube -----	41
3.13	Photograph of an Instrumented Smooth Test Tube --	42
3.14	Thermocouple Locations on an Instrumented Finned Boiling Tube -----	43
3.15	Photograph of an Instrumented Finned Test Tube --	44
3.16	Photograph of Voltage and Current Sensors Installed in Circuit Panel -----	45

5.1	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of Single-Heated-Tube Performance of Tube Number One and Tube Number Five, Surface Preparation A, R-113 -----	83
5.2	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One, Surface Preparation A, R-113 -----	84
5.3	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Preparation A, R-113 -----	85
5.4	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; The Bottom Heated Tube in a Bundle Compared with Single-Heated-Tube Performance, Surface Preparation A, R-113 -----	86
5.5	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Hysteresis Effects on Tube Number One in Single-Heated-Tube Performance, Surface Preparation B, R-113 -----	87
5.6	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tube Number Five in Single-Heated-Tube Performance, Surface Preparation B, R-113 -----	88
5.7	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One, Surface Preparation B, R-113 -----	89
5.8	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation B, R-113 -----	90
5.9	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of the Data of Lepere (1980) and the Correlation of Churchill and Chu (1975) with Tube Number One and Tube Number Five in Single-Heated-Tube Performance, Surface Preparation C, R-113 -----	91
5.10	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One, Surface Preparation C, R-113 -----	92

5.11	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, and Three, Surface Preparation C, R-113 -----	93
5.12	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, and Four, Surface Preparation C, R-113 ---	94
5.13	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation C, R-113 -----	95
5.14	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number Two, Three, Four, and Five Compared When Operated as Bottom-Heated Tube in Bundle to Tubes Number One and Five in Single-Heated-Tube Performance, Surface Preparation C, R-113 -----	96
5.15	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation C, R-113 -----	97
5.16	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, Surface Preparation C, R-113 -----	98
5.17	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of the Data of Lepere (1980) with the Single-Heated-Tube Performance of Tube Number One and Tube Number Five, Surface Preparation D, R-113 -----	99
5.18	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Enhancing Effect on Tube Number One when Influenced by Increasing Numbers of Heated Tubes, Surface Preparation D, R-113 -----	100
5.19	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of the Bottom-Heated Tubes in a Bundle with Tube Number One and Tube Number Five in Single-Heated-Tube Performance, Surface Preparation D, R-113 -----	101
5.20	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-113 -----	102

5.21	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-113 -----	103
5.22	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, Surface Preparation D, R-113 -----	104
5.23	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of an Adjacent Heated Column on a Three Column Tube Bundle, Surface Preparation D, R-113 -----	105
5.24	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tube Number One Compared to the Data of Murphy (1987) and Reilly (1980), Surface Preparation D, R-114 -----	106
5.25	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Enhancing Effect on Tube Number One when Influenced by Increasing Numbers of Heated Tubes, Surface Preparation D, R-113 -----	107
5.26	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of Bottom Heated Tube in a Bundle with Tube Number One in Single-Heated-Tube Performance, Surface Preparation D, R-114 -----	108
5.27	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 -----	109
5.28	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 -----	110
5.29	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, Surface Preparation D, R-114 --	111
5.30	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Single-Heated-Tube Performance of Tube Number One, Varying Concentrations of Oil, Surface Preparation D, R-114 -----	112

5.31	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One in Varying Concentrations of Oil, Surface Preparation D, R-114 -----	113
5.32	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tube Number Five when Five Instrumented Tubes Operating in Varying Concentrations of Oil, Surface Preparation D, R-114 -----	114
5.33	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 1% Oil -----	115
5.34	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 1% Oil -----	116
5.35	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 1% Oil -----	117
5.36	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 2% Oil -----	118
5.37	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 2% Oil -----	119
5.38	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 2% Oil -----	120
5.39	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 3% Oil -----	121
5.40	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 3% Oil -----	122
5.41	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 3% Oil -----	123

5.42	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 6% Oil -----	124
5.43	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 6% Oil -----	125
5.44	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 6% Oil -----	126
5.45	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 10% Oil -----	127
5.46	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 10% Oil -----	128
5.47	Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 10% Oil -----	129
5.48	Uncorrected Variations of Heat Flux with Wall Superheat in Finned-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, with R-114 -----	130
5.49	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Comparison of Tube Number One during Increasing and Decreasing Data Runs, with R-114 -----	131
5.50	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Enhancing Effect on Tube Number One when Influenced by Increasing Numbers of Heated Tubes, Surface Preparation D, with R-114 -----	132
5.51	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Single-Heated-Tube Performance of Tube Number One in Varying Concentrations of Oil, Surface Preparation D, with R-114 -----	133

5.52	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Effect of Varying Oil Concentrations on Tube Number One with the Bundle Operating, Surface Preparation D, with R-114 -----	134
5.53	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 -----	135
5.54	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 1% Oil -----	136
5.55	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 2% Oil -----	137
5.56	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 3% Oil -----	138
5.57	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 6% Oil -----	139
5.58	Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 10% Oil -----	140

## NOMENCLATURE

A	Area of finned-like ends	(m <sup>2</sup> )
A <sub>as</sub>	Voltage output from current sensor	(V)
A <sub>s</sub>	Area of heated surface	(m <sup>2</sup> )
A <sub>c</sub>	Tube-wall cross sectional area	(m <sup>2</sup> )
C	Constant used in the Morgan correlation, see Equation 2.1	
C <sub>1</sub>	Constant used in Davis-Anderson model, see Equations 2.5, 2.6, 2.8, and 2.10	
C <sub>sf</sub>	Constant in Rohsenow correlation, see Equation 2.3	
c <sub>f</sub>	Specific heat capacity of saturated liquid	(J/kg·K)
D	Diameter	(m)
D <sub>i</sub>	Inside diameter of tube	(m)
D <sub>o</sub>	Outside diameter of tube	(m)
D <sub>b</sub>	Bubble departure diameter	(m)
D <sub>1</sub>	Thermocouple location diameter	(m)
E	Constant in Davis-Anderson correlation, see Equation 2.4	
f	Frequency of bubble departure	(1/s)
f'(n)	First derivative of similarity variable in Marster's correlation, see Equation 2.15	
G <sub>z</sub>	Graetz number	
g	Gravitational acceleration	(m/s <sup>2</sup> )
g <sub>c</sub>	Gravitational constant	

H	Heat-transfer coefficient of evaporator surface	$(W/m^2 \cdot K)$
$\bar{h}$	Heat-transfer coefficient of tube unheated finned-like end	$(W/m^2 \cdot K)$
$h_{bc}$	Boiling heat-transfer coefficient given by the correlation of Fujita, see Equation 2.18	$(W/m^2 \cdot K)$
$h_{fg}$	Specific enthalpy of vaporization	$(J/kg)$
$h_{nc}$	Natural-convection heat-transfer coefficient given by the correlation of Fujita, Equation 2.18	$(W/m^2 \cdot K)$
$h_t$	Height of freon column above a heated instrumented tube	$(m)$
I	Integral of the first derivative of the similarity transformed-variable in Marster's correlation, see Equation 2.15	
k	Thermal conductivity of freon	$(W/m \cdot K)$
$k_{Cu}$	Thermal conductivity of copper	$(W/m \cdot K)$
L	Heated length of tube	$(m)$
$L_c$	Corrected unheated length of tube end	$(m)$
$L_u$	Unheated length of tube end	$(m)$
N	Active nucleation sites per unit area	$(1/m^2)$
Nu	Nusselt number	
$Nu_F$	Nusselt number due to forced flow	
$Nu_N$	Nusselt number due to natural flow	
n	Exponent, see Equation 2.17	
p	Perimeter length of the tube outside surface	$(m)$
P	Pressure	$(N/m^2)$
Pr	Prandtl number	

q	Heat-transfer rate	(W)
q'	Heat-transfer rate per unit length	(W/m)
q''	Heat flux	(W/m <sup>2</sup> )
q'' <sub>bc</sub>	Boiling heat flux	(W/m <sup>2</sup> )
q'' <sub>nc</sub>	Natural convection heat flux	(W/m <sup>2</sup> )
R	Riedburgs constant, see Equation (2.4)	(N·m <sup>2</sup> /moles·K)
Ra	Rayleigh number	
Re	Reynolds number	
S	Constant in Davis-Anderson model, see Equations 2.8, 2.9, and 2.10	
s	Exponent in Rohsenow's correlation, see Equation 2.3	
T	Celcius temperature	(C)
t	Thermodynamic temperature	(K)
tfilm	Film thermodynamic temperature	(K)
Tfilm	Film Celcius temperature	(C)
Tld1	Liquid temperature	(C)
Tld2	Liquid temperature	(C)
Tn	Tube wall local temperature	(C)
Tnave	Tube wall average temperature	(C)
Tsat	Saturation temperature	(C)
Tsat <sub>c</sub>	Liquid saturation temperature corresponding to the corrected (for hydrostatic head) pressure	(C)
Tw	Wall Celcius temperature	(C)
twa	Average tube-wall thermodynamic temperature	(K)

T <sub>wa</sub>	Average tube-wall Celcius temperature	(C)
u	Vertical velocity of liquid	(m/s)
V <sub>as</sub>	Voltage output from voltage sensor	(V)
x	Distance from line source to tube	(m)
y	Bundle diameter in Davis-Anderson model, see Equation 2.8	(m)
Z	Fourier conduction term, see Equation C.7	(C)
$\alpha$	Thermal diffusivity	(m <sup>2</sup> /s)
$\beta$	Thermal expansion coefficient	(1/K)
$\rho_f$	Density of liquid	(kg/m <sup>3</sup> )
$\rho_v$	Density of vapor	(kg/m <sup>3</sup> )
$\sigma$	Surface tension of fluid	(N/m)
$\theta$	Bubble contact angle	(degrees)
$\Delta T_b$	Wall superheat	(K)
$\mu$	Dynamic viscosity of liquid	(N·s/m <sup>2</sup> )
$\nu$	Kinematic viscosity of vapor	(m <sup>2</sup> /s)

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## I. INTRODUCTION

### A. BACKGROUND

The energy crisis of the 1970's demonstrated the need for the United States Navy and industry to consider more efficient operating machinery. Increasing cooling requirements for computerized shipboard weapons systems, increasingly complex combat systems, and larger ships further increased the demand for more reliable and cheaper heating, ventilating, and air conditioning (HAVC) systems. Motivated by energy costs, space and weight savings on board U.S. Navy vessels, an advanced chilled water air conditioning system has been proposed and is being developed for the DDG-51 class ships.

The R-114 air-conditioning system of the seventies evolved from a heavy, large, and noisy R-11 plant. This system proved inefficient and unreliable. The R-11 system suffered from internal corrosion caused by acidic attack caused by exposure of R-11 to moisture. This occurred because the suction pressure of the plant was significantly below atmospheric pressure, thus allowing moisture to leak into the system. The subsequent R-114 system operates only slightly below atmospheric pressure and the leakage potential was therefore reduced. In addition, R-114 is chemically more stable than R-11 and does not break down as

rapidly when exposed to moisture. Despite the improved reliability of the R-114 system, however, the plant operated efficiently only in a narrow load range. The high initial cost of tooling and engineering prevented the units (e.g., compressor) from being designed specifically for R-114.

Helmick [Ref. 1] indicated that an energy savings of 1,000,000 kW·hr per ship per year could be achieved if an energy-efficient air-conditioning plant was developed. The plant would occupy 25% less volume than comparable existing fleet units, weigh 25% less, consume 35-40% less energy and incorporate reliability improvements. The energy savings would result from a more efficient thermodynamic cycle and the reliability improvements from the use of an all electronic control system. The size and weight savings would be achieved with the use of advanced heat transfer surfaces, i.e., corrugated nucleate boiling tubes in the evaporator and finned titanium tubes in the condenser. The present thesis deals solely with enhanced evaporator tube surfaces.

Nucleate boiling is a complex phenomenon and is as yet not fully understood. Boiling is the primary means of heat transfer on an evaporator tube surface in an air-conditioning system. Rohsenow [Ref. 2] suggests that the primary means of increased heat transfer in boiling, as opposed to poorer heat transfer due to natural convection, is caused by the pumping away of superheated liquid in the

vicinity of the nucleation sites. Although several models have been proposed to describe the above process, there still remain significant uncertainties relating to the mechanism of bubble growth at a nucleation site, bubble departure, and subsequent fill-in. Many workers have attempted to describe the simpler and more tractable case, of single-component boiling from a single smooth tube. However, even for this case, no reliable model exists. Rohsenow states that there are 30,000 publications which have been written on boiling heat transfer, including approximately 50 textbooks. In addition, 1000 papers per year are published. The amount of data is overwhelming. There is very little information, however, on the boiling heat-transfer characteristics of R-114 from enhanced-surface tube bundles. More data are needed to facilitate design of more efficient evaporators required for the air-conditioning plants on board U.S. Navy vessels.

#### B. OBJECTIVES

Based on the above discussion, the objectives of this thesis are to:

1. Manufacture and instrument five smooth and five finned (19 fins per inch) evaporator tubes for installation and test in a sample section of an evaporator tube bundle.
2. Test the smooth tubes and evaluate their heat-transfer performance in pure R-113.
3. Test the smooth and finned tubes and evaluate their heat-transfer performance in pure R-114 and R-114/oil mixtures.

4. Compare smooth and finned-tube performance.
5. Develop an acquisition and data-reduction program for use with the microcomputer-controlled data-logging system.

## II. LITERATURE SURVEY

### A. GENERAL INTRODUCTION

Nucleate pool boiling from a heated surface immersed in a pool of saturated liquid is the most thoroughly studied boiling heat-transfer mechanism, when compared to partial film boiling and film boiling. Figure 2.1 shows the characteristic boiling curve of a heated surface immersed in a freon. As the surface is heated up, heat is transferred to the fluid by natural convection. The heat flux increases with increasing wall-to-fluid temperature difference (curve AB). Care must be taken in this region of natural convection to ensure that the saturation temperature remains constant. This is to avoid boiling being initiated prematurely when sufficient wall superheat is attained. Point B marks the end of the natural-convection heat-transfer process and is referred to as the onset of nucleate boiling (ONB). Here, sufficient wall superheat exists to activate nucleation sites to enable boiling to occur. Curve BC exhibits the overshoot commonly referred to as the temperature excursion or the "hysteresis" effect. Boiling increases the heat transfer, and wall superheat is reduced. The hysteresis effect is a phenomenon commonly observed in organic refrigerants. Because of their very good wetting characteristics, these fluids fill the nucleation sites and

the amount of superheat required to initiate boiling is thus larger than that for other fluids.

Dissolved gases or two phase return, normally found in air conditioning systems, also aid in promoting boiling. Sustained nucleate pool boiling occurs at point C and continues to point D, the latter called the departure from nucleate boiling (DNB). At point E the critical heat flux is reached. The remainder of the curve depicts partial film boiling (EF) and complete film boiling (FGH). Curve EF is a hypothetical curve fit. These data points are unachievable in practice due to burnout, i.e., the presence of too many bubbles prevents sufficient liquid from reaching the boiling surface. The reducing heat flux curve is marked by the solid line (HFIC). Hysteresis may or may not occur, and generally does not, during runs of successively reducing the heat flux. The active nucleation sites will remain active unless sufficient sub-cooling occurs.

## B. SINGLE-TUBE STUDIES

### 1. Pure Refrigerants

The natural convection part of the boiling curve (AB) for a single horizontal heated tube in a pool of liquid has been studied extensively. Morgan [Ref. 3] suggests a single correlation that fits most data over a wide range of the experimental parameters. The correlation is

$$Nu_D = C Ra_D^n \quad (2.1)$$

where:

C is a tabulated constant (see Table 2.1),

Ra<sub>D</sub> is the Rayleigh number using diameter as the characteristic length, and

n is the Rayleigh number exponent listed in Table 2.1.

Churchill and Chu [Ref. 4] have recommended a single correlation for a single heated horizontal tube as

$$H = \frac{k}{D} \left[ .6 + \frac{.387 Ra_D^{1/6}}{[1 + (.559/Pr)^{9/16}]^{8/27}} \right]^2 \quad (2.2)$$

where:

Pr is the Prandtl number, and

all the fluid physical properties are calculated at the film average temperature (arithmetic mean of the tube wall and liquid saturation temperatures). Equation 2.2 is valid in the range  $1 \times 10^{-5} < Ra_D < 1 \times 10^{12}$ .

Many researchers have attempted to arrive at equations which satisfactorily describe the mechanism of boiling. Because of the poorer heat-transfer performance associated with the natural convection process encountered during system start-up, the wall superheat required to initiate nucleate boiling and the heat flux necessary to sustain the process have received considerable attention.

In 1952, Rohsenow [Ref. 5] proposed a semi-analytical model which used a tabulated constant to reflect different fluid and surface combinations. The correlation is:

$$T_w - T_{sat} = \frac{C_{sf} \cdot h_{fg}}{c_f} \left[ \frac{q''}{\mu \cdot h_{fg}} \sqrt{\frac{\sigma}{g(\rho_b - \rho_v)}} \right]^r \left[ \frac{C_f \cdot \mu}{k} \right]^s \quad (2.3)$$

where:

$C_{sf}$  is a tabulated coefficient, the value of which depends on surface, surface condition, and heated fluid,

$r$  is an exponent whose value is generally accepted to be 0.33, and

$s$  is a constant (1.0 for water and 1.7 for other fluids).

Davis and Anderson [Ref. 6] determined the wall superheat necessary to form a stable bubble on a heated tube using the Gibbs equation for the pressure difference across a curved surface, the ideal gas law, and the Clausius-Clapeyron equation. Assuming a linear temperature profile for the liquid, the following expression was obtained for the wall superheat necessary to sustain nucleate boiling:

$$T_w - T_{sat} = \frac{\frac{R \cdot T_{sat}^2}{h_{fg}} \cdot \ln(1 + E)}{1 - \frac{R \cdot T_{sat}}{h_{fg}} \cdot \ln(1 + E)} + \frac{q'' \cdot y}{k} \quad (2.4)$$

where:

$$E = \frac{2C_1 \cdot \sigma}{P_y} \quad (2.5)$$

$$C_1 = 1 + \cos(\theta) \quad (2.6)$$

$$\theta = \text{bubble contact angle} \quad (2.7)$$

$$y = \frac{C_1 \cdot \sigma}{P} + \left( \frac{C_1 \cdot \sigma}{P} \right)^2 + \frac{2C_1 \cdot k \cdot S}{q''} \quad (2.8)$$

$$S = \frac{\sigma \cdot T_{sat}}{h_{fg} \cdot \rho_v} \quad (2.9)$$

Equation 2.4 was based on a non-hemispherical bubble shape (unlike Rohsenow's correlation which assumed a hemispherical equilibrium state) which Davis and Anderson argued could be the case in a non-uniform temperature field. They claim that this development improved the inconsistencies in previous experimental and theoretical data for determining the upper limit of wall superheat required for boiling. This was also shown to be significantly influenced by the characteristics of the heated surface (i.e., surface finish). For low superheats or high pressures, the Davis and Anderson correlation reduces to:

$$T_w - T_{sat} = \frac{2C_1 \cdot S}{y} + \frac{q'' \cdot y}{k} \quad (2.10)$$

Bergles [Ref. 7] recommends Rohsenow's correlation over that proposed by Davis and Anderson. Both studies suggest that cavities of size  $y$  are required for the initiation of boiling. When multiple size cavities are present, boiling occurs predominantly from the larger cavities as smaller ones increase the superheat requirement.

For the boiling heat-transfer performance of a surface, the model of Han and Griffith [Ref. 8] combines the individual processes of bubble inception, growth and departure from the cavities. Following bubble departure, colder liquid from the bulk of the pool quenches the heated surface and a transient thermal layer is formed. A waiting period is then required before the layer is superheated sufficiently to activate the cavity. The bubble then grows until the departure diameter is reached and the cycle is repeated. Assuming that the area from which the superheated liquid is pumped away corresponds to twice the bubble departure diameter, pure conduction to the superheated liquid layer which is replaced at a rate corresponding to the frequency of bubble departure, Han and Griffith modelled their problem as conduction to a semi-infinite body with a step change in temperature at the surface. By considering the heat flux to be made of a part due to bubble-induced

bulk convection and of a part due to natural convection, they obtained:

$$q'' = q''_{nc} + q''_{bc} \quad (2.11)$$

where:

$$q''_{nc} = [1 - (\pi/4) \cdot N \cdot (2D_b)^2] \cdot h_{nc} \cdot (T_w - T_{sat}) \quad (2.12)$$

$$q''_{bc} = 2[\pi \cdot k \cdot \rho_f \cdot c_f \cdot f]^{1/2} \cdot D_b^2 \cdot N (T_w - T_{sat}) \quad (2.13)$$

N is the number of active sites per unit area, and

f is the bubble departure frequency calculated from transient conduction calculations.

The bubble diameter,  $D_b$ , is determined from the Fritz relation:

$$D_b = 0.01483 \left[ \frac{2\sigma_c \cdot \sigma}{g(\rho_f - \rho_v)} \right]^{1/2} \quad (2.14)$$

## 2. Refrigerant/Oil Mixtures

Due to the close proximity of lubricating oil and freon in an air-conditioning system, mixing is inevitable. Several experimenters have reported both enhancement and degradation of the boiling heat-transfer performance of single smooth and finned tubes immersed in refrigerant/oil mixtures. Wanniarachchi et al. [Ref. 9] showed that the heat-transfer coefficient during boiling of R-114/oil

mixtures from a heated smooth tube decreases with increasing oil concentration. Murphy [Ref. 10] obtained the same result for a finned tube. Both investigators used oil concentrations in the range of zero to ten percent by mass. Henrici and Hesse [Ref. 11], on the other hand, showed some enhancement in heat transfer from a smooth copper tube with varying combinations of heat flux and oil concentrations. The enhancement was attributed to the extra foaming which resulted from the presence of oil. R-114 was again the refrigerant used. Sauere [Ref. 12] carried out tests on a single finned tube with R-11 as the working fluid. His results showed some increase in heat-transfer performance, for oil concentrations up to three percent. At oil concentrations greater than five percent, the heat-transfer performance was greatly reduced. This was attributed to the evaporation of the more volatile component of the mixture (i.e., refrigerant) leaving an oil-rich layer which lingers close to the heated surface. The oil-rich layer has a higher boiling point than the mixture at bulk and the boiling performance decreases as the required superheat increases.

The behavior of boiling heat-transfer reported by other workers is also mixed. The data of Mori et al. [Ref. 13] showed that the heat-transfer performance of a finned tube in R-22/oil and R-11/oil mixtures first increases to a maximum at small oil concentrations and then steadily

decreases for concentrations of up to ten percent by mass. Mori et al. also showed that the heat-transfer performance of R-115 steadily decreased with the addition of oil.

The presence of lubricating oil in freon affects viscosity, vapor pressure, saturation temperature, surface tension, and specific heat. Baustian et al. [Ref. 14] showed that the surface tension of R-113/oil mixtures increases monotonically with increasing oil concentration. Henrici and Hesse [Ref. 11] determined experimentally the surface tension of R-114/oil mixtures. Their data revealed that the mixture surface tension first decreases with increasing oil concentration before it starts increasing for values of the oil concentration higher than approximately 2.5% by mass (see Figure 2.2). Sauere [Ref. 12] et al. reported that for the same wall superheat, bubble formation is reduced as surface tension increases. In addition the increased viscosity of a refrigerant/oil mixture reduces turbulence that dampens eddy formations of liquid flow to the surface.

### C. TUBE BUNDLE STUDIES

For a tube bundle, as compared with a single tube, the difficulty in modelling the boiling behavior and predicting performance is greatly increased. Vapor-bubble agitation created by the lower tubes in a bundle is expected to enhance the performance of the upper tubes ("positive tube-bundle effect"). The presence of too many bubbles, however,

could provide insufficient liquid to the upper boiling surfaces, thus decreasing the heat-transfer performance ("negative tube-bundle effect"). In the presence of oil, the above mechanisms may be substantially changed, so that a comprehensive series of data covering actual operating conditions is needed before evaporators with more predictable heat duties can be designed.

Several experimenters including Fujita [Ref. 15], Wallner [Ref. 16], and Jensen and Hsu [Ref. 17] have reported the "positive tube-bundle effect." They all showed results significantly higher than single-tube results. Fujita [Ref. 15] showed a steady increase in performance as the heated tube moved up in the bundle. In experiments on a four row deep tube bundle, Wallner measured the heat-transfer coefficient for the top tube to be about 50% higher than the corresponding single-tube value. As heat flux is increased, however, the "positive bundle effect" diminishes. At very high values of heat flux, a "negative tube bundle-effect" was measured.

The combined effect of natural and forced convection when one or more heated horizontal cylinders are placed in a vertical column is not well documented. Marsters [Ref. 18] developed correlations for the influence of lower horizontal heated cylinders on higher ones in air. He found that the Nusselt numbers for the cylinders near the top were lower than that for a single cylinder at small spacings and higher

at large spacings. His data for the multiple cylinders approached single-tube performance for a spacing of approximately five diameters. If a lower in-line heated cylinder is considered to be a line source, then the buoyant jet or "forced plume velocity" can be determined. The velocity is calculated from the equation derived by Gebhart [Ref. 19]:

$$u = \left[ \frac{g \cdot \beta \cdot \sigma'}{c_{f,u}^{1/2} \cdot \rho_f^{1/2} \cdot I} \right]^{2/5} f'(n) \cdot x^{1/5} \quad (2.15)$$

where:

- x is the distance between the line source and the heated cylinder whose heat-transfer characteristics are to be determined,
- I is the integral of the first derivative of the similarity-transformed variable ( $f'(n)$ ), (0.188 for a Prandtl number equal to 8.18), and
- $f'(n)$  is the first derivative of the similarity-transformed variable at  $n$  equal to zero (0.435 for a Prandtl number equal to 8.18).

Using the vertical velocity component in the definition of the Reynolds number, the forced-convection component of heat transfer may be calculated using the Hilpert correlation [Ref. 20]:

$$Nu_D = 0.683 Re_D^{0.466} Pr^{1/3} \quad (2.16)$$

The natural- and forced-convection components of heat transfer may be combined to give the Nusselt number as:

$$Nu = (Nu_F^n + Nu_N^n)^{1/n} \quad (2.17)$$

where:

$Nu_F$  is the forced-convection component of Nusselt number,

$Nu_N$  is the natural-convection component of Nusselt number,

$Nu$  is a combined Nusselt number, and

$n$  is an exponent which is generally accepted to be 3.

Little interest is expressed in the literature in this area of mixed convection possibly because returning flow to the boiler is generally two phase. This aids in activation of nucleation sites thereby promoting premature nucleate boiling.

Predicting the heat-transfer characteristics of a tube bundle is a large undertaking. Fujita et al. [Ref. 15] studied a small, triangular pitch bundle, similar to that used in the present study. Fujita et al. adopted a Rohsenow-type analysis for a single tube to obtain an equation for the heat flux in a tube bundle. The first assumption was to consider the bottom tube in the bundle as a single tube and calculate the heat transfer. Knowing that

the upper tube is influenced by the forced-convective induced flow by the lower tube, Fujita proposed:

$$\begin{aligned}
 q'' = & 2[\pi \cdot k \cdot \rho_f \cdot c_f \cdot f]^{1/2} \cdot D_b^2 \cdot N \cdot (T_w - T_{sat}) \\
 & + [1 - N \cdot \pi \cdot D_b^2] \cdot 0.5 H_{bc} \\
 & + 0.25 \cdot H_{nc} \cdot (T_w - T_{sat})
 \end{aligned}
 \tag{2.18}$$

where:

$H_{bc}$  is the heat-transfer coefficient due to forced convective effects from lower tube, and

$H_{nc}$  is the natural-convection heat-transfer coefficient and its value was tabulated for various surface types and various fluids.

The value of  $H_{bc}$  was determined experimentally by Fujita et al. and was found to be approximately linearly related to the bubble production rate and independent of pressure. Fujita extended his model to more than two tubes. The solution required iterative techniques.

Several other approaches have been considered in an attempt to determine the boiling heat-transfer characteristics of tube bundles. Empirical and semi-empirical equations have been proposed. Payvar [Ref. 21] used a one dimensional model derived from basic conservation equations. His model, however, required an experimentally determined heat-transfer coefficient and an estimate of pressure drop across the shell. Hahne and Mueller [Ref. 22] developed a simple analysis for the case of two tubes in a

vertical line and a spacing of two diameters. They then used the results from the two-tube analysis to approximate entire bundle performance. Palen et al. [Ref. 23] used the surface factor concept (ratio of enhanced single heated tube to smooth single heated tube) with appropriate adjustments for naturally induced flows and two phase flows, to model the heat-transfer performance of evaporator bundles. Webb et al. [Ref. 24] developed a computer model for calculating the heat duty of a kettle reboiler evaporator of various geometries and tube types. Again, however, a heat-transfer coefficient must be approximated as an input parameter. It is clear that, for the range of bundle geometries and the amount of evaporator tube surfaces available, existing correlations and computer programs do not provide a sufficient and reliable means toward predicting the heat duty of a refrigeration-system evaporator. More experimentation is needed.

TABLE 2.1

FREE CONVECTION HEAT TRANSFER ON A HORIZONTAL  
CIRCULAR CYLINDER; CONSTANTS IN EQUATION 2.1

$Ra_D$	C	n
$10^{-10}$ to $10^{-2}$	0.675	0.058
$10^{-2}$ to $10^2$	1.02	0.148
$10^2$ to $10^4$	0.850	0.188
$10^4$ to $10^7$	0.480	0.250
$10^7$ to $10^{12}$	0.125	0.333

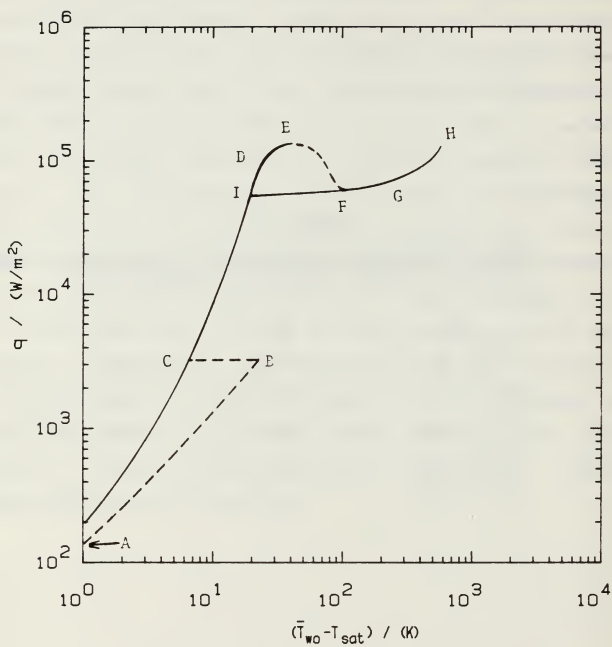


Figure 2.1 Typical Boiling Curve for Refrigerants

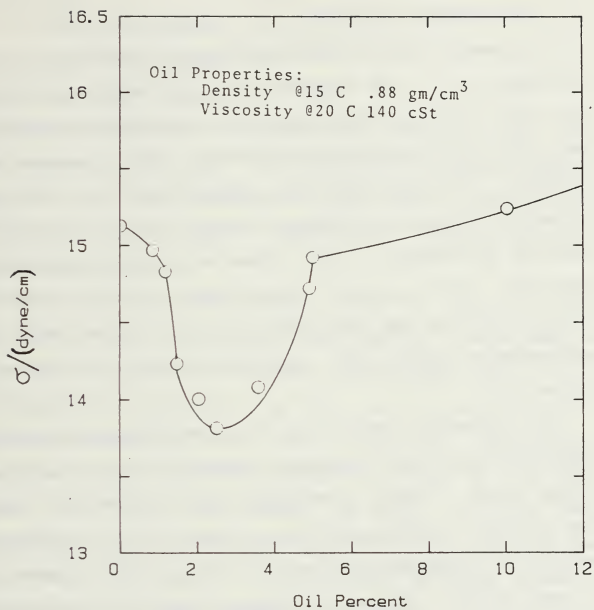


Figure 2.2 Surface-Tension Variation of R-114/Oil Mixtures Measured at a Temperature of 10 C

### III. EXPERIMENTAL APPARATUS

#### A. TEST APPARATUS OVERVIEW

A schematic view of the experimental apparatus is shown in Figure 3.1. The apparatus was designed by Zebrowski [Ref. 25], built by Murphy [Ref. 10] and modified by Mabrey [Ref. 26] for condensation experiments. The evaporator was modified for multiple-tube instrumentation and data collection during this thesis. Murphy [Ref. 10] provided a detailed description of the apparatus and its manufacture. Therefore, only a brief description of the apparatus, concentrating on the evaporator section, is given here. An evaporator/condenser test apparatus diagram is shown in Figure 3.2.

The condenser consists of four instrumented horizontal condenser tubes and a secondary condenser of five individual copper coils. Vapor, generated in the evaporator, enters the condenser section through a riser and is distributed axially and circumferentially to the top of the condenser by a vapor shroud. Figure 3.3 shows a sectional view of the orientation of the condenser section and vapor shroud. Condensate is returned to the evaporator via a condensate collar as shown in Figure 3.4.

The evaporator is a kettle reboiler type design. It consists of three individually-controlled sets of heaters. These are:

1. Auxiliary heaters.
2. Simulation heaters.
3. Tube-bundle heaters.

Each set of heaters is controlled by a STACO 240 Volt, 23.5 KVA rheostat controller. The controller board is shown in Figure 3.5. The geometry of the kettle reboiler and evaporator heater layout is depicted in Figures 3.6 to 3.9 and discussed below.

The four auxiliary heaters, shown in Figure 3.9, can provide up to 16 kW of heat load capacity. This power is used, primarily, to provide additional load during condensation experiments, as well as for system control during decreasing heat flux evaporator experiments. Auxiliary heater power is limited to a total of 4 kW total power (1000 watts per heater) in order to avoid freon decomposition problems caused by exceeding the critical heat flux value ( $130 \text{ kW/m}^2$ ). Decomposition problems, cited by Mabrey [Ref. 26] and referenced by Dupont [Ref. 27], are avoided when observing the above limits.

The simulation heaters, shown in Figure 3.9, provide a means of artificially increasing the number of heated tubes in the bundle and thus simulate conditions comparable to those encountered in large horizontal tube-bundle

evaporators. The heaters, 1.5 kW each, are positioned below a dummy tube rack (seen in Figure 3.10) which extends over the length of the tube bundle. No vapor is generated on the dummy tube rack. Its purpose is to establish the flow pattern of the rising vapor by providing the bundle geometry.

The tube bundle consists of instrumented, active, and dummy tubes (see Figure 3.9). The smooth tubes are 15.8 mm (0.625 inch) in diameter and are arranged in a 19.1 mm (0.75 inch) equilateral triangular pitch. The finned tubes used in this investigation have a fin-root diameter of 12.7 mm (0.5 inch) and the diameter to the tip of the fin is 15.8 mm (0.625 inch). The tubes are cantilevered from a back plate of the tube bundle support block (see Figure 3.11) and are supported on the free ends with a lexan plate which is drilled to the pitch of the bundle. Each heated tube may be secured individually. When more than one of the tubes are in operation, however, the power (and hence heat flux) supplied to each tube is equal since the potential difference across each heater element is the same. The dummy tubes are unheated and serve to provide geometry, flow orientation, and flow patterns, comparable to a normal, large horizontal tube bundle. Dummy tubes are indicated by a "D" in Figure 3.9. The active tubes serve to provide geometry and additional heating adjacent to the instrumented tubes. The active tubes are indicated with an "A" in Figure

3.9. The instrumented tubes encompass the features of active and dummy tubes and in addition include instrumentation. They are indicated by an "I" on Figure 3.9. The instrumentation allows measurement of temperature at a known radial position in the wall of the heated tube enabling external wall-temperature approximation by Fourier's Law.

The instrumented heated tubes in the evaporator bundle are manufactured locally by machining a 15.8 mm (0.625 inch) outer diameter copper sleeve to inside tube diameter minus 0.005 inch (clearance on the diameter) for insertion into the evaporator tube. The copper sleeve for the smooth evaporator tubes has equally spaced 1 mm square channels at 60 degree increments around the circumference. The thermocouples are positioned at 50.8 mm (2 inch) longitudinal intervals, starting at 50.8 mm (2 inches) from one end, and proceeding to 152.4 (6 inches), then repeating once for a total of 6 thermocouples. Type-T copper-constantan thermocouple wires are placed in each channel and secured in place as described in Chapter IV. A 1000 W cartridge heater is inserted in the bore of the sleeve. Figure 3.12 shows the circumferential and longitudinal positions of the six thermocouples. Figure 3.13 shows the instrumented tube prior to assembly. The instrumented finned tubes are built in the same way as the smooth tubes, except that the six wall thermocouples are now placed at six

different axial locations along the length of a tube. Figure 3.14 shows the circumferential and longitudinal positions of the six thermocouples and Figure 3.15 is the finned tube prior to assembly. For both smooth and finned tubes, the copper sleeve and tube were bonded with eutectic lead-tin (60:40) solder. This solder was chosen for its strength, lowest melting temperature, and favorable heat-transfer characteristics.

#### B. DATA ACQUISITION SYSTEM/INSTRUMENTATION

The Hewlett Packard HP-3497A Data Acquisition System and HP-9216 computer are used for data acquisition and data reduction, respectively. HP Basic 3.01 is used for data reduction. Type-T copper-constantan thermocouple measurements (volts) were made on the HP 3497A with the relay multiplexer assembly equipped with thermocouple compensation. A 20 channel relay multiplexer card is used to measure voltage output from voltage and amperage sensors (see Figure 3.16). Voltage measurements are taken from separate sensors measuring tube bundle, simulation and auxiliary heaters potential. Auxiliary and simulation heater (total) amperages are each measured using an American Aerospace Control (AAC) current sensor. Five such sensors are used to measure the amperage in each of the instrumented-tube heaters. The power supplied to the active tubes in the bundle has the capability of being measured but currently is not.

Table 3.1 lists computer channel assignments for data acquisition.

#### C. ANCILLARY EQUIPMENT

Heat removal is provided by an 8 ton refrigeration unit which cools a 1.8 m<sup>3</sup> reservoir of ethylene glycol-water mixture (60:40) by volume. Reservoir temperature is normally maintained at -20 C. The coolant is pumped through the primary condenser tubes via four calibrated float-type flow meters. One additional flow meter is used to measure the total flow rate to the five secondary copper condensing coils. Each secondary coil may be secured individually. The primary condenser tubes and the secondary condenser coils are serviced by individual pumps.

TABLE 3.1

## COMPUTER/DATA ACQUISITION ASSIGNMENT

Thermocouples Description	Channel	Array in Code
Vapor	00	T(0)
Vapor	01	T(1)
Vapor	02	T(2)
Liquid	03	T(3)
Liquid	04	T(4)
Tube 1, No. 1	40	T(5)
Tube 1, No. 2	41	T(6)
Tube 1, No. 3	42	T(7)
Tube 1, No. 4	43	T(8)
Tube 1, No. 5	44	T(9)
Tube 1, No. 6	45	T(10)
Tube 2, No. 1	46	T(11)
Tube 2, No. 2	47	T(12)
Tube 2, No. 3	48	T(13)
Tube 2, No. 4	49	T(14)
Tube 2, No. 5	50	T(15)
Tube 2, No. 6	51	T(16)
Tube 3, No. 1	52	T(17)
Tube 3, No. 2	53	T(18)
Tube 3, No. 3	54	T(19)
Tube 3, No. 4	55	T(20)
Tube 3, No. 5	56	T(21)
Tube 3, No. 6	57	T(22)
Tube 4, No. 1	58	T(23)
Tube 4, No. 2	59	T(24)
Tube 4, No. 3	60	T(25)
Tube 4, No. 4	61	T(26)
Tube 4, No. 5	62	T(27)
Tube 4, No. 6	63	T(28)
Tube 5, No. 1	64	T(29)
Tube 5, No. 2	65	T(30)
Tube 5, No. 3	66	T(31)
Tube 5, No. 4	67	T(32)
Tube 5, No. 5	68	T(33)
Tube 5, No. 6	69	T(34)

TABLE 3.1 (CONTINUED)

Amperage Sensors		
Description	Channel	Array
Tube 1	30	Amp(0)
Tube 2	31	Amp(1)
Tube 3	32	Amp(2)
Tube 4	33	Amp(3)
Tube 5	34	Amp(4)
Active	35	Amp(5)
Active	36	Amp(6)
Active	37	Amp(7)
Active	38	Amp(8)
Active	39	Amp(9)
Aux. Htr.	25	Amp(10)
Sim. Htr.	26	Amp(11)
Voltage Sensors		
Description	Channel	Array in Code
Inst/Active	27	Volt(0)
Sim. Htr.	28	Volt(1)
Aux. Htr.	29	Volt(2)

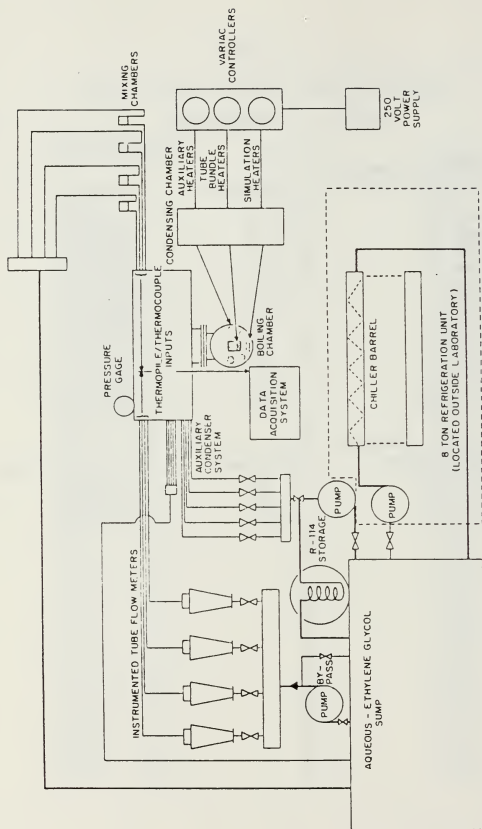


Figure 3.1 Schematic View of the Apparatus

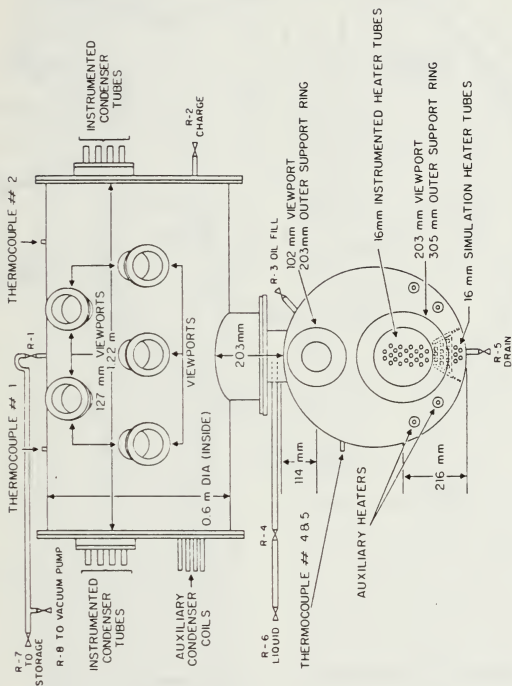


Figure 3.2 Evaporator/Condenser Schematic

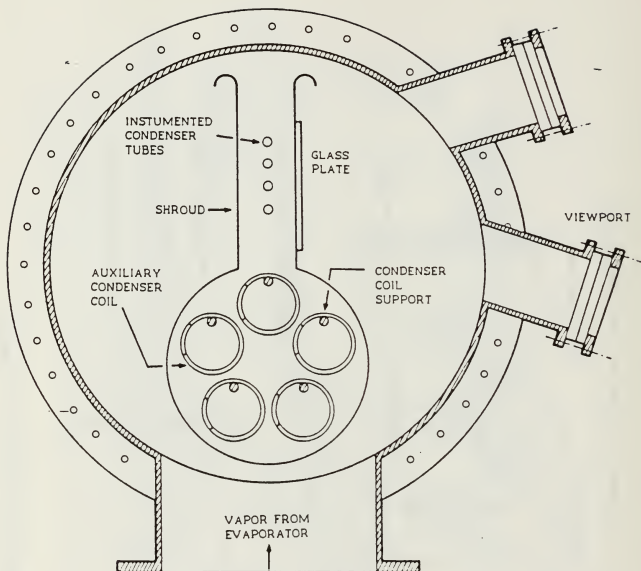


Figure 3.3 Sectional View of Condenser Shroud

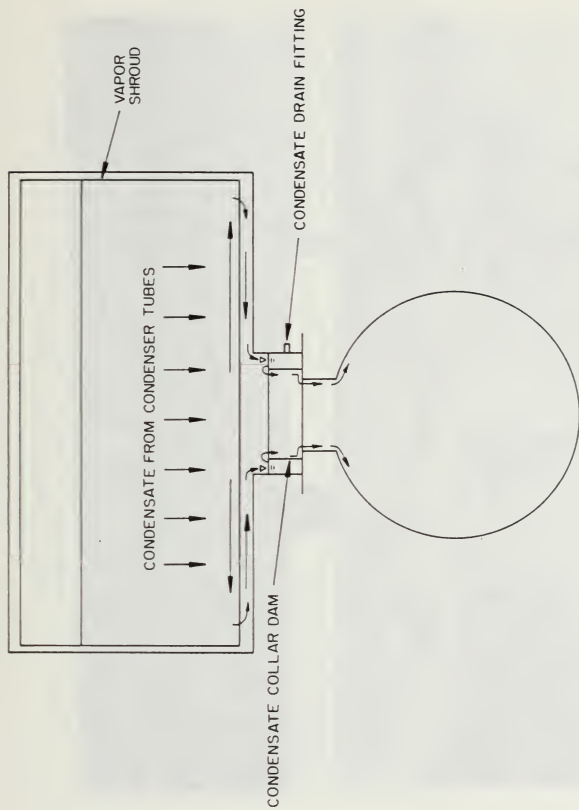


Figure 3.4 Sectional Schematic of Apparatus Showing Condensate Return Path

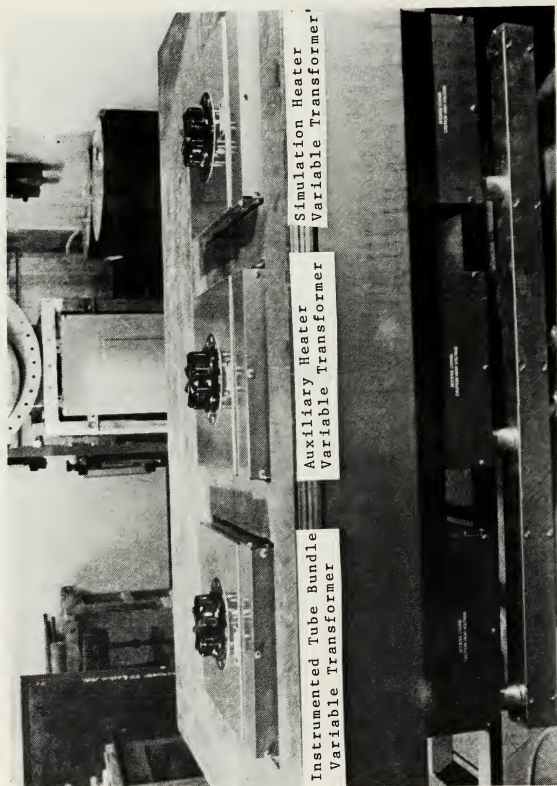


Figure 3.5 Photograph of 208 V, 75-A, Variable Transformers  
Used to Control Heat Addition

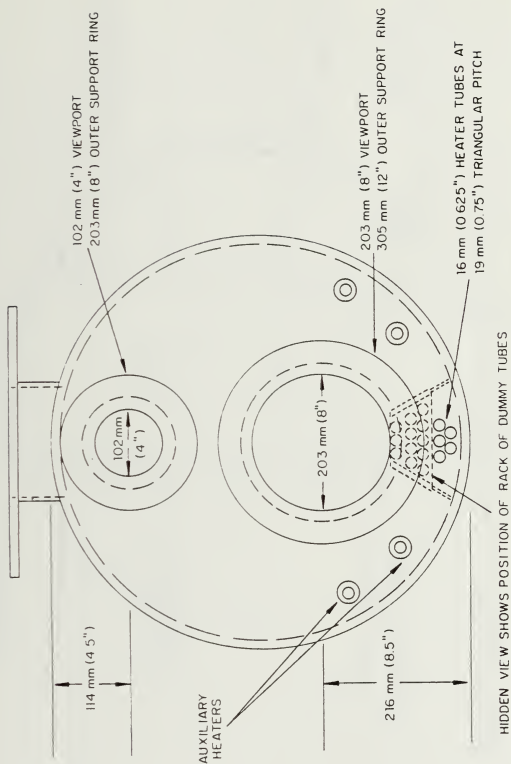


Figure 3.6 Front View of Evaporator

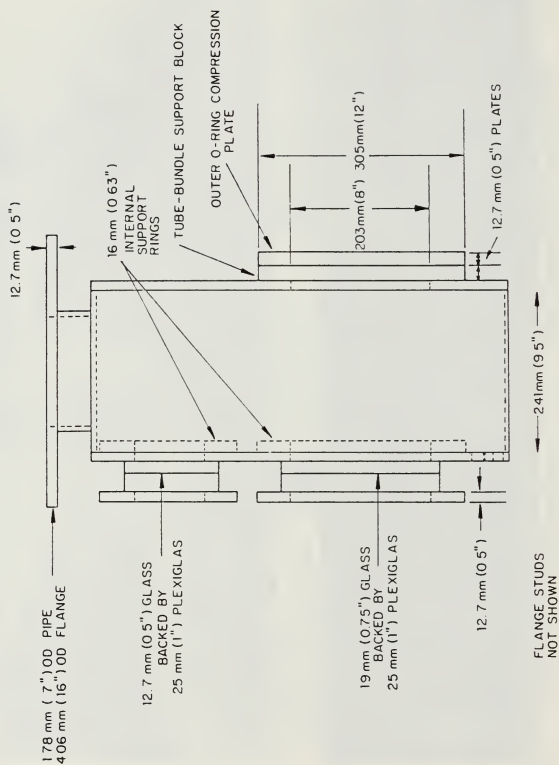


Figure 3.7 Side View of Evaporator

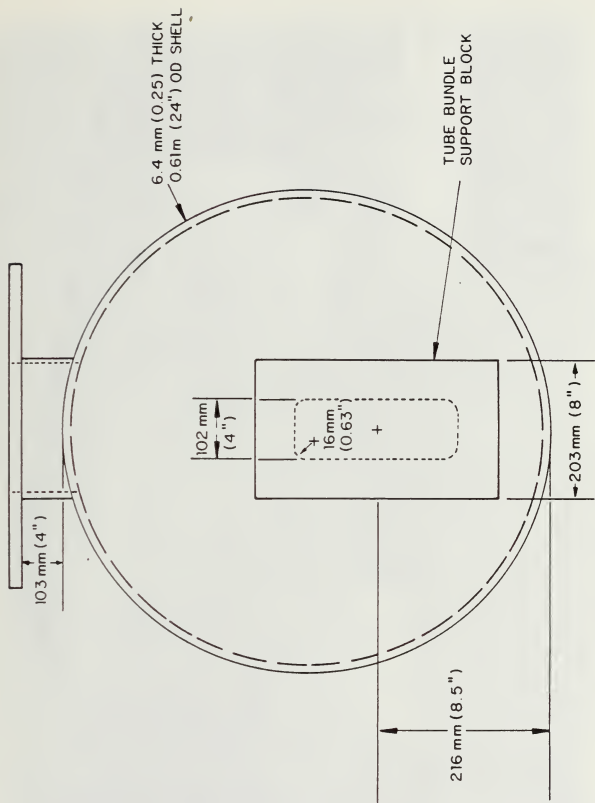


Figure 3.8 Rear View of Evaporator

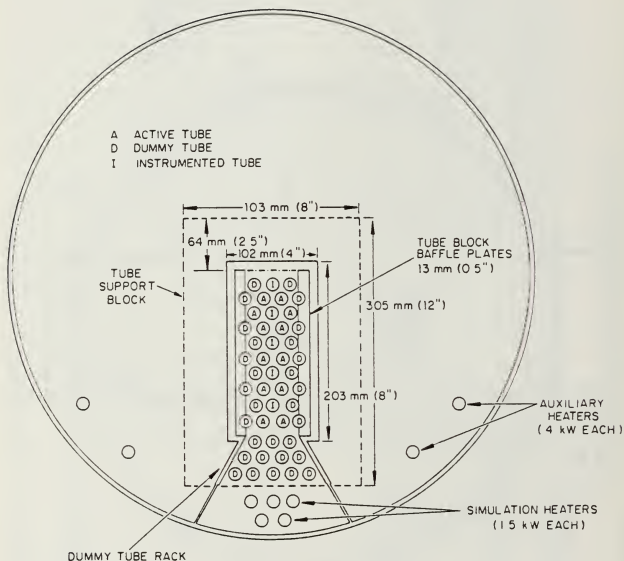


Figure 3.9 Sectional View of Evaporator Showing Tube Bundle, Dummy Tube Rack and Simulation Heaters

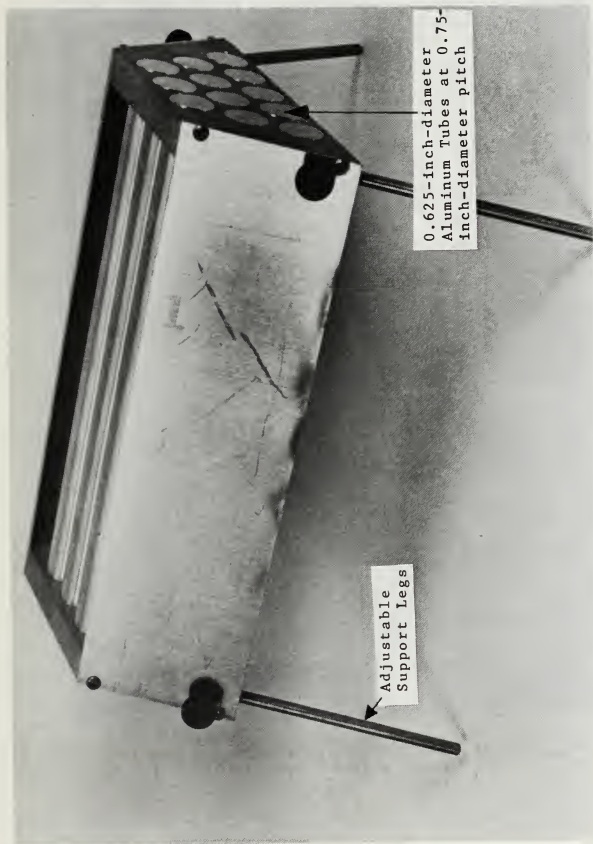


Figure 3.10 Photograph of Dummy Tube Rack

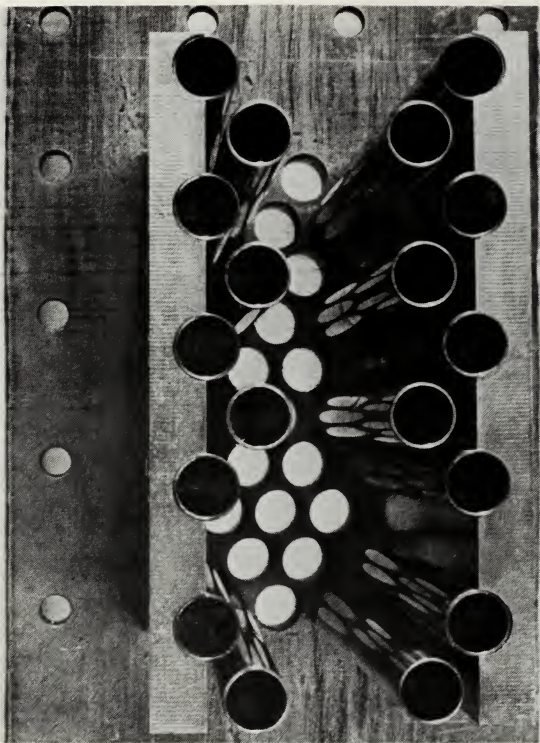


Figure 3.11 Photograph of Tube-Bundle Support Block without Instrumented and Active Tubes

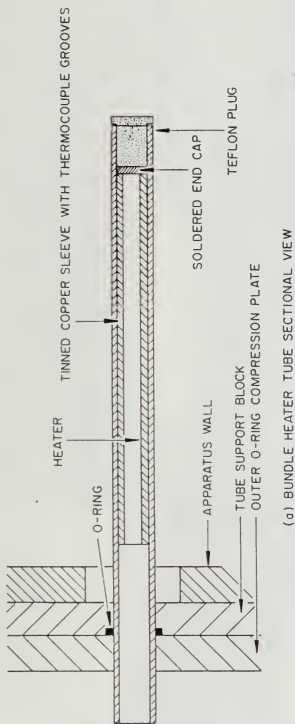


Figure 3.12 Thermocouple Locations on an Instrumented Smooth-Boiling Tube

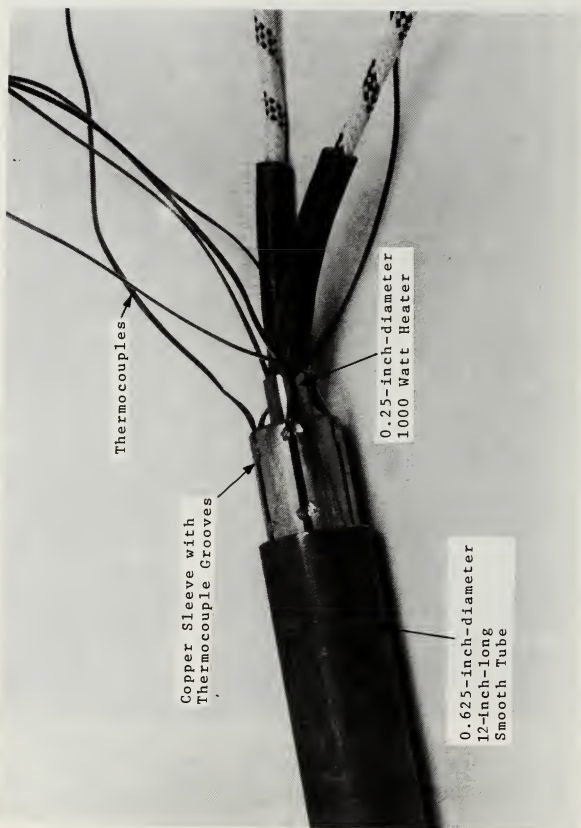
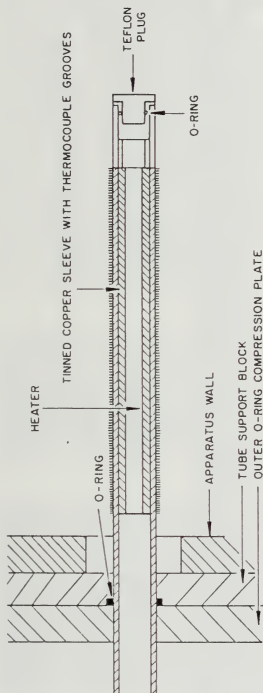
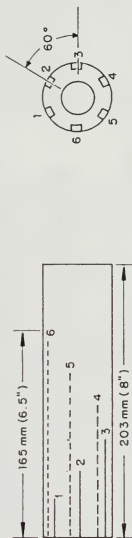


Figure 3.13 Photograph of an Instrumented Smooth Test Tube



(a) BUNDLE HEATER TUBE SECTIONAL VIEW



(b) THERMOCOUPLE LOCATIONS ALONG HEATED LENGTH

Figure 3.14 Thermocouple Locations on an Instrumented Finned-Boiling Tube

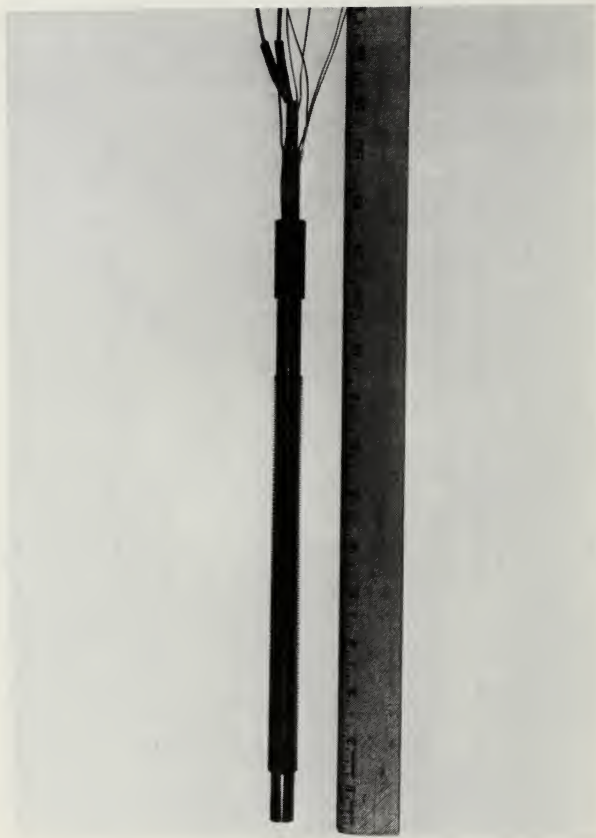


Figure 3.15 Photograph of an Instrumented Finned Test Tube

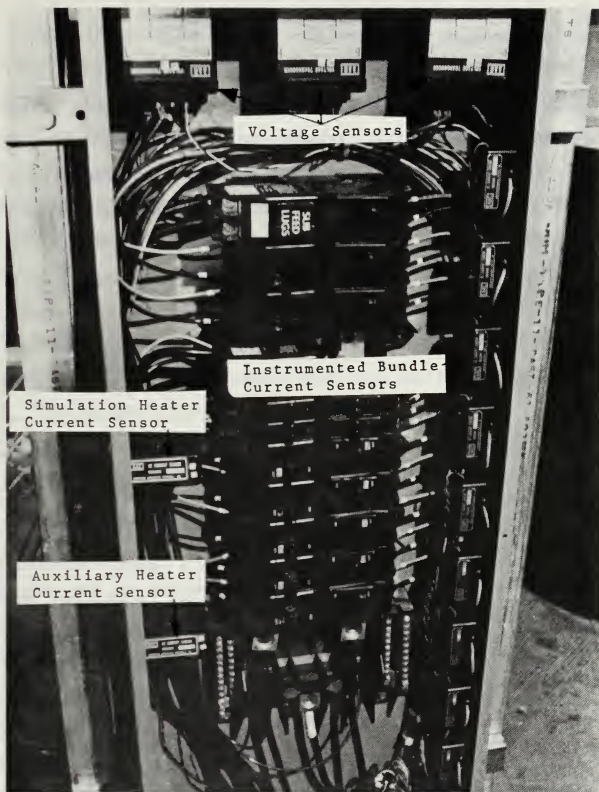


Figure 3.16 Photograph of Voltage and Current Sensors Installed in Circuit Panel

#### IV. EXPERIMENTAL PROCEDURES

##### A. MANUFACTURE OF INSTRUMENTED EVAPORATOR TUBES

In order to manufacture the smooth and finned instrumented evaporator tubes, the assorted pieces were first machined to the dimensions specified in Chapter III. Type-T, copper-constantan thermocouples were positioned in the 1 mm grooves machined on the copper sleeve. The thermocouples were secured in place by bending over the copper edges of the 1 mm wide grooves at 1 inch intervals with a blunt punch. The resulting imperfections were eliminated with fine (400 grit) sandpaper. Great care was taken to avoid damage to the thermocouple insulation and copper-constantan junction. All surfaces to be soldered were brushed with flux solution and after approximately one minute the excess flux solution was removed with a cloth.

The evaporator tube was then placed in a 12 inch tube heater and a cartridge heater was inserted in the copper sleeve and connected to a voltage controlling rheostat. A multiple channel Omega "Digicator" digital temperature read-out was used to monitor the temperatures of the copper sleeve and the tube heater. Power was supplied to the tube and cartridge heaters until the temperature of the sleeve and copper tube was approximately 200 C. This temperature was maintained while solder was applied to both surfaces.

The melting point of the eutectic solder was 190 C. Maintaining the temperature of the soldered surfaces close to 200 C and working quickly was essential in order to avoid unnecessary oxidation of the contact surfaces. The temperature was monitored carefully so that the melting point of thermocouple insulation (260 C) was not exceeded. The copper sleeve was inserted in the evaporator tube following tinning of the surfaces. A temporary friction fitting aluminum plug, which extended in the evaporator tube by 1 inch, served as a "stop" for the sleeve. Prior to cooling, a copper end cap was soldered in position. Additional local heat to the tube end was often required whenever the end of the tube cooled below the melting point of the solder. Power was finally secured, and the evaporator tube was allowed to cool.

#### B. INSTALLATION OF EVAPORATION TUBES AND TUBE SUPPORT BLOCK

The tube support block contained five instrumented evaporator tubes, 12 active heated evaporator tubes, and 18 dummy evaporator tubes. The dummy tubes did not penetrate through the tube block. The active and instrumented tubes penetrated through the block so that the heater and thermocouple wires could be led out of the test section. The seal was provided by an O-ring compressed between the tube support block and a stainless-steel backing plate. Once the evaporator tubes were installed in the block, the support block was guided into the kettle reboiler unit from

the rear side and with the front-viewing window removed. The block was then levelled and all bolts were tightened to prevent movement. The front-viewing window was then installed and tightened appropriately. Each heated tube was pushed forward so as to touch the front-viewing window. This provided vertical alignment for all heaters. O-rings were then put in place and compressed by tightening the backing stainless-steel plate against the support block. The front window and back plates were finally tightened into position.

#### C. SYSTEM EVACUATION

Once the apparatus was isolated from the atmosphere and system integrity was restored, the system was evacuated using a Seargent Welch 10 SCFM vacuum pump. The valves R-1 through R-7 were shut, and R-8 were open during pumpdown. Evacuation to 29 inches of mercury (pressure below atmospheric) took approximately three hours. R-8 was then shut and the system was monitored overnight (typically ten hours minimum) for no noticeable drop in vacuum. When the system passed the vacuum test, freon fill was accomplished.

#### D. FREON FILL

R-113 and R-114 were used in this series of experiments. Filling the system with R-113 was accomplished by evacuating the system as specified above and inserting a hose in the R-113 drum and drawing it in the apparatus through R-5 by

means of the pressure difference, through R-5 until the desired level was achieved.

A freon storage tank was used to store R-114 during maintenance periods. Storage prevented discharging R-114 into the atmosphere with its subsequent harmful effects, and made experimentation less costly.

Filling with R-114 was more time consuming. First, the cooling sump was cooled to a temperature less than -10 C and both the instrumented and auxiliary condensers were placed in operation. Once the valves from the liquid side of the storage tank, R-6, and the backside of the evaporator, R-4, were opened, fill was begun. The initial pressure in the storage tank was normally around 12 psig and the apparatus was at 29 inches of mercury (pressure below atmospheric). When the pressure between the storage tank and apparatus equalized, the transfer was complete. With the sump temperature at -20 C the equalizing pressure was between five and eight inches of mercury (pressure below atmospheric). Transfer normally took approximately one-half hour. R-4 and R-6 were then closed. Additional freon was added from purchased cylinder containers with a similar technique to that described above, using R-2 as the fill valve.

#### E. FREON REMOVAL

R-113 was removed by first opening R-2 and allowing the system pressure to reach atmospheric pressure. An air

supply was then connected to R-2 and the apparatus was pressurized to 5 psig. R-2 was then closed. R-113 was removed by opening R-5 and, by means of tygon tubing, it was then led to a waste drum for storage. R-113 removal took approximately ten minutes.

To transfer R-114 into the storage tank, the cooling reservoir was cooled down to at least -10 C and the storage-tank condenser placed in operation. R-1 and R-7 were then opened thus allowing vapor to reach the storage tank and condense on the condenser coil. When the pressures in the apparatus and storage tank became equal (i.e., all freon transferred), R-1 and R-7 were closed. The R-114 transfer process took approximately two hours. This time could be reduced, however, by having the apparatus at near-room temperature and/or using heaters to increase the generation of R-114 vapor. When heaters were used, care was exercised not to exceed the system maximum design pressure of 30 psig and not to operate heaters when no longer immersed in fluid.

#### F. GENERAL OPERATION

Filling up to a mark (scratched on the rear section of the evaporator shell), corresponded to a mass of 60.3 Kg of R-114 at -15 C (5 degrees F). To this mass of R-114 successive amounts of oil were added for the performance tests conducted with R-114/oil mixtures.

Prior to operating the system, the eight ton refrigeration unit was run for two to three hours in order to obtain

a sump temperature of  $-10^{\circ}\text{C}$  or less. With the system charged with R-114 at room temperature, the initial system pressure was 170 kPa (12 psig). Start-up of the system required slow increase of the cooling provided by the condensing coils until the saturation temperature of  $2.2^{\circ}\text{C}$  (pressure of approximately 100 kPa) was reached. Slow cooling was only required when performing an increasing heat flux from a secured condition. This was to ensure that nucleation sites were not activated prematurely.

Once the system was stabilized at  $2.2^{\circ}\text{C}$ , the desired heat flux was attained by a combination of adjusting the rheostat at the control table and monitoring output on the screen from the data reduction program. Saturation conditions were maintained by adjusting the heat input to the evaporator and the amount of cooling provided by the condenser. When saturation conditions were maintained for five minutes, data were taken. Five minutes at a given power setting ensured that system equilibrium was attained.

#### G. SURFACE AGING

The surface aging techniques used in this investigation were similar to those used by Bergles and Chyu [Ref. 28]. Varying surface aging allowed the dependence of boiling incipience on the past history of the boiling surface to be examined. The surface aging techniques used in this investigation were:

1. Surface Aging A--Pre-boil at saturated conditions for one hour at  $30 \text{ kW/m}^2$ , was followed by immediate operation with successively increasing heat flux runs.
2. Surface Aging B--Pre-boil at saturated conditions for one hour at  $30 \text{ kW/m}^2$ . Secure power for 30 minutes while saturation conditions were maintained, then begin operation with successively increasing heat flux runs.
3. Surface Aging C--The evaporator power was secured overnight and, once saturation conditions were reached, by slowly cooling (R-114) or slowly heating with auxiliary heaters (R-113), data were taken in successively increasing heat-fluxes.
4. Surface Aging D--Saturation conditions were maintained for 30 minutes at a surface heat flux of  $100 \text{ kW/m}^2$ . Decreasing heat flux runs followed immediately.

#### H. OIL ADDITION

Successive amounts of oil were added into the system through valve R-3. The system pressure was first reduced to less than five inches of mercury of vacuum and the oil was syphoned in from a storage drum. A scale was used to ensure that the appropriate amount of oil was added to the refrigerant.

#### I. DATA-REDUCTION PROCEDURES

The data-reduction program "DRP4" was the software developed for processing the data collected during the course of this investigation. The program is written in HP-Basic 3.01 and run on an HP-9000 series computer. The program capabilities were:

1. Collect and process data, then print results.
2. Reprocess previously collected data and create new output.

3. Plot graphs on a logarithmic scale.
4. Plot graphs on a linear scale.
5. Delete existing files.
6. Delete data points in existing files.
7. Move files onto another disk.
8. Combine two files.

The computer data acquisition channel and array assignment are provided in Table 3.1. Two sets of data were collected for each set of conditions. Raw and unprocessed data were stored in data files. Plot files contain processed data. A plot and a data file were maintained for each data run. Should an error be discovered in processed information, the plot files were easily corrected by simply running the program using option zero for reprocessing. Raw data from the existing file are used to create a new plot file. Existing plot files were deleted using the "Purge" feature.

The "Taking Data" feature of the data reduction program was a user friendly, interactive, self-explanatory program. Each step had default values which corresponded to the most commonly-used options. Default values were specified on the screen for each step. The basic subdivision of the main data-taking subprogram is:

1. Set heat flux.
2. Set saturation temperature.
3. Take data.

Once data were taken and stored, they were plotted using the appropriate plotting subroutines. Three options were available for the variables to be plotted:

1.  $q''$  vs  $(Tw-T_{sat_C})$ .
2.  $h$  vs  $(Tw-T_{sat_C})$ .
3.  $h$  vs  $q''$ .

In addition, the scales on both axes could be externally chosen so that all data were displayed appropriately. Routine capabilities for moving, combining, and deleting files were also included. Appendix A is a complete listing of DRP4.

## V. RESULTS AND DISCUSSION

### A. GENERAL COMMENTS/LAYOUT

The results of this investigation are presented in three general sections with appropriate sub-sections in each. In the first section, the smooth-tube bundle is operated with refrigerant R-113 and with the four different surface preparations (A, B, C, and D) specified in Chapter IV. The purpose of the R-113 data runs is to determine the heat-transfer characteristics through all operating modes of a representative slice (section) of an evaporator tube bundle. Once evaluated, this section of the evaporator can then be used to approximate the entire evaporator bundle heat-transfer performance. In the second section, the smooth-tube bundle is operated with refrigerant R-114 and varying concentrations of York "C" lubricating oil in order to determine the effects of oil on heat-transfer performance. In the third section, the finned-tube bundle data are discussed. Pure R-114 and R-114/oil mixtures were used with the finned-tube bundle.

A list of data runs conducted during this investigation may be found in Tables 5.1 through 5.3. All data files used in this thesis are named in a systematic fashion. A six-digit alphanumeric code was used. The first letter is an "I" or "D" which represents increasing or decreasing heat

flux runs, respectively. The second and third letters represent the tube type, "SM" for smooth tube and "FN" for finned tube. The fourth letter represents the surface preparation, A, B, C, or D. And last, the number at the end of each file name is the run number. All plot files begin with a "P" and the P is followed by the file name.

The figures shown in this chapter are of heat flux (ordinate) against the wall superheat (abscissa). The surface heat flux is determined by the product of the measured voltage and amperage divided by the evaporator surface area. The surface area of a finned tube is taken to be that of a smooth tube with a diameter equal to that to the base of the fins. The tube-wall temperature is determined as the average of the six temperatures indicated by the wall thermocouples which were located at various circumferential and longitudinal positions. The difference between the tube-wall temperature and the liquid saturation temperature is the wall superheat. The maximum variations of the measured tube-wall temperatures are 3.74 (at maximum heat flux) and 0.27 K (at minimum heat flux). As a percentage of the corresponding wall superheats, these values correspond to 17.3 and 18.3 percent, respectively. These are the uncertainties associated with the calculated values of the wall superheat as a result of the lengthwise and circumferential variation of the tube-wall temperature. They are typical of all the smooth-tube data presented in this thesis.

As a matter of definition, when individually-heated evaporator tubes are referred to in this thesis, they will be referred to as tube number one, tube number two, etc. The term bundle will be used to indicate that all instrumented evaporator tubes and adjacent active dummy pairs are operating. Mini-bundle is used to describe the top three instrumented tubes, with the first two active dummy pairs, and one additional pair of dummy heated tubes positioned adjacent and between the operating active dummy pairs. The bundle plus five simulation heaters indicates that the bundle and the simulation heaters are in operation.

#### B. R-113 BOILING FROM THE SMOOTH-TUBE BUNDLE

##### 1. Surface Preparation A

Surface preparation A prescribes maintaining the evaporator tube(s) at a heat flux of  $30 \text{ kW/m}^2$  for one hour, slowly reducing heat flux to a minimum value of around  $1 \text{ kW/m}^2$ , and beginning data collection immediately at successively increasing heat fluxes. The motivation for this surface preparation is a widely varying dynamic load often encountered in an air-conditioning machine.

Figure 5.1 compares the performances of tubes number one and five as single heated tubes (i.e., the only tubes operating in the bundle). Lepere's data [Ref. 29] are also shown by the solid line. The general shape of the curves is the same, i.e., the heat flux increases with increasing wall superheat. For the same heat flux, however, tube number

five exhibits higher wall superheat. The difference in wall superheat between tubes number one and five is attributed to the difference in pressure head, viscous effects, circulation patterns, and the location of the liquid thermocouples. These were situated close to tube number one and were offset by about 1 cm on either side of the tube center line. The presence of many bubbles in the neighborhood of the tube could have caused higher temperatures indicated by the thermocouples and thus lower superheats, as shown in Figure 5.1. The temperature of tube number five is considered to be more representative of the pool temperature. Although the experimental test rigs used by Lepere and in the present work are different, the general characteristics regarding the location of the liquid thermocouple in Lepere's experimental apparatus are the same to those for tube number one in the present apparatus. The current results for tube number one are thus very similar to Lepere's single-tube results, as expected.

Figure 5.2 shows the influence of tube number two on tube number one. The enhancing influence of the additional heated tube below a heat flux of  $10 \text{ kW/m}^2$  is remarkable. Tube number two resembles top tube performance for the case when the top tube is the only heated tube. In addition, tube number one data converge to single-tube results at the higher heat fluxes ( $> 20 \text{ kW/m}^2$ ). Enhancement on the higher heated tubes is also seen in Figure 5.3 where the results

for the case when all five instrumented tubes are in operation, are shown. Again, enhancement for the higher tubes is most marked below  $10 \text{ kW/m}^2$ , while all tubes approach single-tube performance at the higher heat fluxes.

Figure 5.4 compares the performance of all bottom-heated tubes as the number of heated tubes is increased, with single-tube performance. Tubes one, two and four are seen to exhibit single-tube performance. The performance of tubes three and five, however, departs from that of a single tube at heat fluxes lower than around  $13 \text{ kW/m}^2$ . In these cases, a slight hysteresis is shown, indicating the possible time lag in between the different runs and its role in "snuffing out" nucleation sites on the lower tubes when heat flux is reduced sufficiently. This deactivation of nucleation sites degrades performance as the heat-transfer mechanism changes from boiling to natural convection.

## 2. Surface Preparation B

Surface preparation B simulates an operating refrigeration system undergoing frequent off-cycles. A heat flux of  $30 \text{ kW/m}^2$  at saturation conditions is maintained for one hour. Power is then secured for 30 minutes and then data are taken at successively increasing heat flux steps.

The characteristic hysteresis effect exhibited by organic fluids is shown in Figure 5.5 for tube number one. The wall superheat is reduced by approximately 5 K at the onset of nucleate boiling. All data collected at heat

fluxes greater than  $10 \text{ kW/m}^2$  duplicate single-tube results for surface preparation A. The hysteresis effect is not as pronounced with tube number five operating as a single tube (see Figure 5.6). The wall superheat is reduced by approximately 1 K at the onset of nucleate boiling. Furthermore, the bottom tube in each of the cases where a different number of tubes was heated, does not approach single-tube performance for values of the heat flux less than about  $26 \text{ kW/m}^2$ . The difference in wall superheat between tube number one and tube number five for surface preparation B, at a heat flux of  $30 \text{ kW/m}^2$ , is approximately 3.5 K. This is consistent with the difference in surface aging condition A, as shown in Figure 5.1. The drastic increase in slope near the boiling point (Figure 5.6) yields almost constant wall superheat as the heat flux continues to increase.

Incipient boiling occurs at lower heat fluxes when additional tubes are activated in the bundle. The simplest case is shown in Figure 5.7 where tubes number one and two are operated simultaneously. The onset of nucleate boiling from tube number one occurs at  $2.8 \text{ kW/m}^2$  and the temperature overshoot is reduced to less than 1 K. This reduction of heat flux required for incipient boiling is caused by the preheat and buoyancy-induced flow which influences tube number one. Figure 5.8 shows the result for the case when all five heated tubes are in operation. Hysteresis is

totally eliminated for tube number one and is minimized for tubes number two, three, and four.

### 3. Surface Preparation C

The initial start-up of a refrigeration system introduces many complexities of the heat-transfer process. Prior to the initiation of boiling on the evaporating surface, convection, both natural and forced, dominates the heat transfer process. The bottom tube in the bundle approaches single-tube performance while evaporator tubes further up in the bundle are influenced by the tubes below. As the number of evaporator tubes increases, the wall superheat required to cause incipient boiling on the upper tubes is reduced. As a result, boiling occurs earlier.

Figure 5.9 compares the performance of tubes number one and five, with each acting alone as a single tube. The data of Lepere [Ref. 29] are also shown. The present results for tube number one are similar to Lepere's data and the hysteresis effect is clearly seen in both cases. Tube number five, however, does not exhibit the hysteresis effect. Instead, it shows a practically constant wall superheat of about 17 K for values of the heat flux between 7-30 kW/m<sup>2</sup>. This is similar to the results shown in Figure 5.6 for tube number five operating as a single tube. The behavior of the data for tube number five might be associated with flow circulation, viscous effects or the pressure head between the tube and the point of measurement

of the pool saturation temperature. The pressure head can deactivate or "snuff out" active or activating nucleation sites causing boiling heat transfer to be hindered. The Churchill and Chu correlation for natural-convection heat transfer is shown in the figure by the solid line through the square symbols. The low heat-flux data for tube number five are well represented by the natural-convection result. Tube number one predictions differ up to 150% of calculated. The discrepancies might be associated with the location of the liquid-temperature-measuring thermocouples in relation to the two tubes. Tube number one is very close (within 2 cm) to the thermocouples whereas tube number five is 13.2 cm away from the thermocouples. At a given heat flux, the calculated wall superheat for tube number one will be less than for tube number five, because the freon vapor generated on the top tube would not be cooled as much prior to reaching the thermocouples. The liquid temperature in the vicinity of tube number one does not represent a true "pool" temperature, but a temperature at the top of the bundle. On the other hand, with tube number five acting alone, local temperature effects are mitigated by distance. The liquid thermocouples in this case give a more accurate representation of the pool temperature.

Figure 5.10 shows the influence of tube number two on the heat-transfer performance of tube number one. In Chapter II, a solution to this problem was outlined. Recall

that the buoyancy-induced velocity was determined with line source approximations and was used to calculate a Reynolds number. Using the Hilpert (Equation 2.16) relation, the forced-convection component of heat transfer was calculated. Knowing the single-tube natural-convection component of the Nusselt number and the forced-convection component of the Nusselt number, a Nusselt number was determined by use of the power-law equation. The results for the cases where  $n = 2$  and  $n = 3$  are shown in Figure 5.10. For  $n = 2$ , the results agree to within 40% when compared to the experimental data for tube number one. Incipient boiling for tube number one occurs with a wall superheat of 5.5 K less than the corresponding value for single-tube operation. The heating of R-113 on tube number two reduces the amount of heating needed to be provided by tube number one in order to initiate boiling. Tube number two is also influenced by the onset of nucleate boiling. As shown in Figure 5.10, the slope of the natural-convection curve increases noticeably from the onset of nucleate boiling to the point of incipient boiling. This increase in heat-transfer performance is due to increased mass flow through the bundle. Notice also that incipience on tube number two at  $10 \text{ kW/m}^2$  is within 10% of single-tube results as seen in Figure 5.9.

The hysteresis effect is virtually unnoticed as tube number three is added to the operating tubes to show the influence on tube number one (see Figure 5.11). Tube number

two is influenced by tube number three in a similar way as tube number one is influenced by tube number two (see Figure 5.10). Tube number three (Figure 5.11) approaches the characteristics of tube number five (Figure 5.9) after incipient boiling when performance is monitored as a single tube.

The behavior of the data for tubes number four and five is very similar (Figures 5.12 and 5.13). This further shows that the performance of all bottom-heated tubes is similar and that the essentially-constant wall superheat is not an anomaly of any of the heated tubes. Wall superheat of tubes number three, four, and five in Figures 5.11, 5.12, and 5.13, respectively, is essentially constant after boiling is initiated. Boiling occurs sooner (i.e., at lower wall superheats) on upper heated tubes if the freon is preheated prior to heating on the upper tubes. Natural-convection heat transfer is also enhanced near the top of the bundle.

Figure 5.14 compares the lower-tubes performance when two, three, four and five tubes are operated, with the performances of tubes number one and five when operated as a single tubes. This serves to confirm that the lower tube in each case tends to mimic single-tube performance. The fact that the results for the top tube operating alone are higher than the data for all other tubes, can be explained by the

flow patterns around tube number one; these are very different when compared to tubes number two through five.

Lastly, the bundle operation is considered during start-up. The results shown in Figure 5.15 correspond to the case when all five instrumented tubes and all active dummy pairs are heated. The hysteresis effect is evident for all tubes and incipient boiling occurs for all tubes at the same heat flux of approximately  $3 \text{ kW/m}^2$ . Above  $25 \text{ kW/m}^2$ , all tubes approach single-tube performance. The results of Figure 5.16 are for the case when the simulation heaters simulating five additional heated tubes were used. It is seen that not only is performance enhanced at lower heat fluxes when using the simulation heaters, but hysteresis effects become negligible. This would seem to suggest that two-phase flow at entry to the bundle tends to eliminate most hysteresis effects.

#### 4. Surface Preparation D

A continuously operating air-conditioning system is most closely modelled by surface preparation D. Surface preparation D is continuously decreasing heat flux starting from maximum power following surface aging at  $100 \text{ kW/m}^2$  for one-half hour. Considering that the return flow to the boiler is normally two-phase, nucleation sites are maintained active throughout the evaporator tube bundle. The decreasing heat flux data runs are normally the most readily reproducible and are used most often in measurements

of tube-bundle performance. This surface preparation is the most widely used for reporting the performance of evaporator-tube surfaces and will be adopted throughout the remainder of this investigation.

Figure 5.17 compares the heat-transfer performance of tube number one and tube number five, with each operating as a single tube. Lepere's data [Ref. 29] are also included in this figure. The two sets of results are in very good agreement. As the heat flux is reduced, the curves for tube number five and tube number one diverge. This divergence is an anomaly of the log-log scale. Below  $10 \text{ kW/m}^2$  the difference in wall superheat starts at 2 K and reduces to 1 K at  $1 \text{ kW/m}^2$ . The difference between the wall superheats, at a heat flux of  $100 \text{ kW/m}^2$ , is approximately 4 K.

The performance of tube number one is enhanced by operating heated tubes directly below it. Figure 5.18 shows this enhancement as additional heated tubes are added to investigate the enhancing effect on the top tube. The first data file DSMD07 is single-tube data followed by two, three, four, and five heated tubes. The last file, data represented with an asterisk, is for all instrumented tubes plus the active dummy pairs. Figure 5.19 displays the opposite end of the spectrum; bottom tubes are shown and compared with single tube number one in data run DSMD07. As before, the wall superheat increases with increasing depth in the bundle. The shape of all curves is similar.

Figures 5.20, 5.21, and 5.22 show the data for tubes number one through five, the bundle, and the bundle plus the five simulation heaters in operation, respectively. The average heat-transfer coefficients for the cases above are  $2.6 \text{ kW/m}^2 \cdot \text{K}$ ,  $2.5 \text{ kW/m}^2 \cdot \text{K}$ , and  $2.4 \text{ kW/m}^2 \cdot \text{K}$ , respectively, at a heat flux of  $30 \text{ kW/m}^2$ . The data show that the performance of upper tubes in the bundle is degraded (i.e., decreased for tubes nearer the top of the bundle) for values of the heat flux higher than around  $12 \text{ kW/m}^2$ . Below a heat flux of  $10 \text{ kW/m}^2$ , the overall performance is seen to be enhanced. At high heat fluxes, degradation is attributed to vapor blanketing and the subsequent starvation of nucleation sites for freon. Performance as a result is hindered. Below  $12 \text{ kW/m}^2$ , performance is enhanced due to increased circulation.

Lastly, two additional heated tubes are situated one column out and one on either side of the second heated instrumented tube. This creates a "mini" bundle to check the influence of heated tubes adjacent to the active dummy pairs. Figure 5.23 compares the results of two runs made with and without operation of the additional heated tubes. Clearly, the heat-transfer characteristics of the instrumented tubes are not influenced by the additional adjacent columns of heated tubes.

C. R-114 BOILING FROM THE SMOOTH-TUBE BUNDLE (SURFACE PREPARATION D)

The performance of tube number one when operated on its own is compared to the data of Reilly [Ref. 30] and Murphy [Ref. 10] in Figure 5.24. Murphy's data agree very well with the present results for values of the heat flux above  $10 \text{ kW/m}^2$ . When the heat flux is less than  $10 \text{ kW/m}^2$ , however, the two sets of results deviate. The discrepancy is thought to be due to the use of auxiliary heaters by Murphy in order to maintain constant cooling of the fluid flow through the condensate sub-system during the decreasing heat-flux runs. Increased circulation is set up from the auxiliary heaters, thereby influencing the pool temperature. Tests performed during the present investigation indicated that the auxiliary heaters power must be maintained under 400 watts in total, so as not to influence the data at low heat fluxes. Reilly's data are also shown in Figure 5.24. Differences between these and the present ones may be attributed to the different apparatuses used in the two investigations and/or surface aging.

Figure 5.25 shows the influence of added heated tubes on tube number one. Data file DSMD34 depicts the single-heated tube followed by tube-number-one performance when influenced by one, two, three, and four heated tubes. As found in the case of R-113, the top-tube performance increases with increasing number of heated tubes below it. The increase in heat transfer is caused by the buoyancy-induced flow, as

discussed for R-113. In Figure 5.26, the results for the bottom tubes, for each of the cases with a different number of heated tubes, are shown. It can be seen that they are very similar and close to the single-tube data. The same result was also found for R-113.

Figure 5.27 shows the results for the case when tubes number one, two, three, four, and five are in operation. The average heat-transfer coefficient for the five heated tubes is about  $2.6 \text{ kW/m}^2\cdot\text{K}$ , at a heat flux of  $30 \text{ kW/m}^2$ . The performance of tube number one is highest for values of the heat flux below  $10 \text{ kW/m}^2$ . At the higher heat fluxes, vapor blanketing of the upper boiling surface might occur, thus deteriorating heat transfer. Under similar operating conditions with R-113, such a crossover did not occur until a heat flux of about  $23 \text{ kW/m}^2$ . The difference in the two values of the heat flux may be attributable to the higher specific heat of R-113 as compared with that of R-114.

Figures 5.28 and 5.29 show the results for the cases when the tube bundle and the tube bundle plus the five simulation heaters are in operation, respectively. The average heat-transfer coefficient, at a heat flux of  $30 \text{ kW/m}^2$ , is for the first case  $2.58 \text{ kW/m}^2\cdot\text{K}$  and for the second case,  $2.52 \text{ kW/m}^2\cdot\text{K}$ . The difference in the two values is negligible. Performance of the tube bundle with and without the simulation heaters is essentially the same.

#### D. BOILING FROM R-114/OIL MIXTURES ON THE SMOOTH-TUBE BUNDLE

Since the working fluid (freon) of a refrigeration or air-conditioning system is compressed in the oil-lubricated compressor, a refrigerant/oil mixture is often circulated throughout these systems. Depending on the freon and lubricating oil used, heat-transfer results for boiling from refrigerant/oil mixtures have so far been mixed; both enhancement and degradation of heat transfer have been reported.

Figure 5.30 shows the results for tube number one when heated alone in R-114/oil mixtures. Data for oil concentrations of 0, 1, 2, 3, 6, and 10% by mass, are shown. The presence of 1% oil brings about a virtually unnoticeable change in heat transfer when compared to the case of pure R-114. At an oil concentration of 2%, heat-transfer enhancement occurs for values of the heat flux higher than  $10 \text{ kW/m}^2$ , with degradation occurring at the lower values. The results for a 3% oil concentration are very similar. Performance is, however, dramatically reduced at oil concentrations of 6% and 10%. For the latter case, heat-transfer results are the lowest. At the maximum heat flux of  $100 \text{ kW/m}^2$ , wall superheats vary by over 20 K between the cases of 0 and 10% oil concentrations. Peak performance, with single top-tube operation, is obtained at an oil concentration of approximately 3%, by mass.

To further investigate the effect of oil on heat transfer during boiling from a tube bundle, Figure 5.31 shows the influence of one additional heated tube (tube number two) in the bundle on tube number one, with varying concentrations of oil. Heat-transfer enhancement for concentrations up to and including 6% are obtained. Performance is degraded at the maximum oil concentration of 10%. The maximum enhancement occurs at 3% oil concentration. Figure 5.32 shows the results for tube number five with five instrumented tubes in operation and for the whole range of oil concentrations. Similar results to those for the top tube are obtained.

Figures 5.33 through 5.47 show the results for the cases when operating the five heated instrumented tubes, the bundle, and the bundle plus the five simulation heaters for the entire range of oil concentrations used in the present work. Table 5.4 gives the tube-bundle average heat-transfer coefficient at  $30 \text{ kW/m}^2$  and all cases above. Enhancement ratio is defined as the ratio of the heat-transfer-coefficient measured at a given oil concentration to that measured for pure R-114. Peak performance of the bundle is seen to be for oil concentration of between 2% and 3%, by mass. At oil concentrations greater than 3%, performance begins to deteriorate up to the maximum concentration of 10%. At 10% oil, the performance approximates that measured for pure R-114.

Several reasons have been advanced to explain the heat-transfer enhancement resulting from the presence of oil in small percentages in refrigerants. Foaming and surface tension were both considered. Stephan and Mitrovic [Ref. 31] showed that the ratio of bubble diameter, with and without oil, is directly related to the corresponding surface-tension ratio. In Figure 2.2, the surface tension of R-114/oil mixtures is seen to reduce first, up to a concentration of 2.5%, and then increase with further increase in the amount of oil present. A smaller-size bubble would enable a greater bubble density to exist and thus increased conduction from the heated surface through the thin microlayer of liquid that coats the surface, would be obtained. With an increased number of smaller-size bubbles, heat transfer can thus be enhanced.

#### E. FINNED-TUBE BUNDLE, GENERAL COMMENTS

The thermocouple instrumentation procedure adopted for the finned tubes is similar to that for the smooth tubes, but proved to be less than satisfactory. Table 5.5 depicts the temperature readings of the six thermocouples in each of the tubes one through five, for a heat flux of  $95 \text{ kW/m}^2$ . Maximum temperature variations at maximum heat flux in smooth-tube runs were found to be about 4 K. In the case of the finned tubes, variations up to 25 K are experienced.

Several theories are being evaluated to correct the problem so that reliable finned-tube data can be obtained

using this apparatus. First, the distance between the thermocouple hot junction and the heater must be increased. The finned tubes used in the present tests have a fin-root diameter of 12.7 mm (0.5 inch) and an inside diameter of 9.3 mm (0.366 inch). The heaters used are 6.35 mm (0.25 inch) in diameter. After machining the 1 mm square thermocouple grooves on the copper sleeve inserted into the tubes there is less than 0.5 mm wall thickness between the heater and the thermocouple wire. Any imperfections in the heater could not be mitigated by the copper. A solution that is being pursued is to bore the inside diameter of the finned tube to a larger dimension and/or reduce the heater diameter. The boring failed to work (required tolerance could not be achieved) and so 0.125 inch diameter heaters will be requisitioned. Secondly, the inside of the finned tube is difficult to tin with such a small inside diameter. It is possible that local hot spots are created due to improper tinning. Alternative methods such as tilting the tube, while tinning, or back filling after sleeve installation must be pursued. Lastly, it is possible that installed heaters are faulty. This is thought to be the least likely cause of the problem since similar heaters, from the same manufacturers, have been used in the past successfully.

F. BOILING FOR R-114 AND R-114/OIL MIXTURES ON THE FINNED TUBE BUNDLE (SURFACE PREPARATION D)

Figure 5.48 shows the heat-transfer results during boiling of pure R-114 from the five instrumented heated tubes. Unlike the smooth-tube result, no consistent variation of the heat-transfer performance with tube location is obtained. This might be attributable to the very large wall-temperature variations indicated by the six thermocouples on each of the five tubes. These variations are significantly higher than the wall superheat determined on the basis of an arithmetic mean of the six wall temperatures on a tube. Large uncertainties are thus associated with these data.

In all subsequent graphs showing data for the finned-tube bundle, the wall temperature is taken as the arithmetic mean of only the two values indicated by thermocouples TC1 and TC2. The choice for TC1 and TC2 was made after detailed examination of the data which suggested that these two thermocouples were the ones likely to lead in least error. It is therefore recommended that the data discussed from hereon are treated with extreme caution. They can only be viewed from a qualitative viewpoint.

Single-tube performance of tube number one for increasing and decreasing heat flux is shown in Figure 5.49. The results are almost identical above a heat flux of  $24 \text{ kW/m}^2$ , as expected. The hysteresis effect, seen in the increasing heat flux data run, is remarkable. There is

around 15 K thermal overshoot prior to the onset of nucleate boiling. In addition, boiling does not occur for values of the heat flux lower than around  $20 \text{ kW/m}^2$ . The mechanism which inhibits boiling is the increased area provided by the copper fins, which effectively carry away the heat.

The performance of tube number one, as influenced by lower tubes, is shown in Figure 5.50. File DFND78 represents single-tube performance followed by top-tube performance as influenced by tube number two, tubes number two and three, etc. The last file (DFND83) shows the performance of tube number one as influenced by the whole bundle operation. All runs are for pure R-114. In all cases the results are seen to converge above a heat flux of around  $80 \text{ kW/m}^2$  to virtually a single point, indicating that the influence of additional tubes at higher heat transfer rates is negligible. Below  $15 \text{ kW/m}^2$ , the enhancing effect of additional heated tubes is dramatic, with the largest percentage increase in heat transfer brought by one additional heated tube. Minimal effects are observed with five more heated tubes. When the bundle is turned on, enhancement is again significantly increased with a wall superheat reduction of almost 2 K (as compared to the case when the five instrumented tubes were heated). This increased performance can be attributed to the increased flow circulation through the bundle.

Figure 5.51 shows the effect of increasing the oil concentration on the heat transfer from a single heated tube (tube number one). It can be seen that addition of one percent oil, by mass, yields a negligible change in heat transfer as compared with the value obtained for pure R-114. Oil concentrations of two and three percent result in maximum heat transfer for values of the heat flux higher than around  $20 \text{ kW/m}^2$ . Below  $20 \text{ kW/m}^2$ , performance is lower than for pure R-114, for all oil concentrations. This is in contrast with smooth single-tube results which essentially show improvement through the entire heat-flux range, with the exception of 10% oil (see Figure 5.32). This might be due to the fact that, with the finned tubes, less vigorous boiling (and hence less foaming) occurs. The results for an oil concentration of six percent show improvements for values of the heat flux higher than  $30 \text{ kW/m}^2$  and degradation below this value of heat flux. The presence of ten percent oil by mass in R-114, results in a wall superheat increase of 1 K and 4 K at the lowest and highest heat fluxes, respectively.

Figure 5.52 shows the performance of tube number one with the bundle operating and over the whole range of oil concentrations. Base-line data to which comparisons below are referred to, is the performance of tube number one at zero percent oil. The fitted lines through the data for 1, 2, 3, and 6% oil concentrations intersect at approximately

11 kW/m<sup>2</sup>, and those for oil concentrations of 0% and 10% intersect at about 18 kW/m<sup>2</sup>. Above these values, the performance of tube number one is enhanced; below them, performance is degraded. Performance in the higher heat-flux range, is highest with three percent oil. It is also interesting to note that performance is always enhanced in the high heat-flux range, while always degraded in the low heat-flux range. This may be associated with the amount of foaming present during tests conducted at different conditions.

Figures 5.53 through 5.58 show the heat-transfer results with the bundle in operation and with oil concentrations of 0, 1, 2, 3, 6, and 10% oil by mass, respectively. Table 5.6 shows numerical results at a heat flux of 30 kW/m<sup>2</sup>. Enhancement ratio is defined as the ratio of the heat-transfer coefficient for a refrigerant/oil mixture to the heat-transfer coefficient for pure R-114. It can be seen that values of the enhancement ratio are generally higher than unity. A negligible reduction in heat transfer is obtained even for an oil concentration of 10%.

TABLE 5.1

DATA SETS FOR THE SMOOTH-TUBE BUNDLE IN R-113

File Name	Number of Data Points	Number of Heated Tubes	Number of Active Dummy Pairs	Number of Simulated Tubes
ISMA01	20	1	0	0
ISMB02	16	1	0	0
ISMC03	21	1	0	0
ISCM04	26	1 (TN5)	0	0
ISMA05	20	1 (TN5)	0	0
ISMB06	20	1 (TN5)	0	0
DSMD07	20	1	0	0
DSMD08	20	1 (TN5)	0	0
ISMC09	24	2	0	0
ISMA10	20	2	0	0
ISMB11	20	2	0	0
DSMD12	20	2	0	0
ISMC13	20	3	0	0
ISMA14	20	3	0	0
ISMB15	20	3	0	0
DSMD16	20	3	0	0
ISMC17	22	4	0	0
ISMA18	20	4	0	0
ISMB19	20	4	0	0
DSMD20	20	4	0	0
ISMC21	22	5	0	0
ISMB22	19	5	0	0
ISMA23	20	5	0	0
DSMD24	20	5	0	0
ISMC25	20	3	2	0
DSMD26	20	3	2	0
ISMC27	20	5	5	0
DSMD28	20	5	5	0
ISMC29	18	5	5	5
DSMD30	16	5	5	5
DSMD31	20	3	2	0
DSMD32	16	5	5	5
DSMD33	20	5	0	0

TABLE 5.2

DATA SETS FOR THE SMOOTH-TUBE BUNDLE IN PURE  
R-114 AND R-114/OIL MIXTURES

File Name	Number of Data Points	Number of Heated Tubes	% Oil	Number of Dummy Pairs	Number of Simulated Tubes
DSMD34	20	1	0	0	0
DSMD35	20	2	0	0	0
DSMD36	20	3	0	0	0
DSMD37	20	4	0	0	0
DSMD38	20	5	0	0	0
DSMD39	20	5	0	5	0
DSMD40	20	5	0	5	5
DSMD41	20	5	0	0	0
DSMD42	20	1	1	0	0
DSMD43	20	2	1	0	0
DSMD44	15	3	1	0	0
DSMD45	20	4	1	0	0
DSMD46	20	5	1	0	0
DSMD47	20	5	1	5	0
DSMD48	16	5	1	5	5
DSMD49	20	1	2	0	0
DSMD50	20	2	2	0	0
DSMD51	20	3	2	0	0
DSMD52	20	4	2	0	0
DSMD53	20	5	2	0	0
DSMD54	20	5	2	5	0
DSMD55	16	5	2	5	5
DSMD56	20	1	3	0	0
DSMD57	20	2	3	0	0
DSMD58	20	3	3	0	0
DSMD59	20	4	3	0	0
DSMD60	20	5	3	0	0
DSMD61	20	5	3	5	0
DSMD62	16	5	3	5	5
DSMD63	20	1	6	0	0
DSMD64	20	2	6	0	0
DSMD65	20	3	6	0	0
DSMD66	20	4	6	0	0
DSMD67	20	5	6	0	0
DSMD68	20	5	6	5	0
DSMD69	16	5	6	5	5
DSMD70	20	1	10	0	0
DSMD71	20	2	10	0	0
DSMD72	20	3	10	0	0
DSMD73	20	4	10	0	0
DSMD74	20	5	10	0	0
DSMD75	20	5	10	5	0
DSMD76	16	5	10	5	5

TABLE 5.3

DATA SETS FOR THE FINNED-TUBE BUNDLE IN PURE  
R-114 AND R-114/OIL MIXTURES

File Name	Number of Data Points	Number of Heated Tubes	% Oil	Number of Dummy Pairs	Number of Simulated Tubes
DFND77	20	5	0	0	0
DFND78	20	1	0	0	0
DFND79	20	2	0	0	0
DFND80	20	3	0	0	0
DFND81	20	4	0	0	0
DFND82	20	5	0	0	0
DFND83	20	5	0	5	0
DFND84	20	1	0	0	0
IFNC85	24	1	0	0	0
DFND86	20	1	1	0	0
DFND87	20	2	1	0	0
DFND88	20	3	1	0	0
DFND89	20	4	1	0	0
DFND90	20	5	1	0	0
DFND91	20	5	1	5	0
DFND92	20	1	2	0	0
DFND93	20	2	2	0	0
DFND94	20	3	2	0	0
DFND95	20	4	2	0	0
DFND96	20	5	2	0	0
DFND97	20	5	2	5	0
DFND98	20	1	3	0	0
DFND99	20	2	3	0	0
DFND100	20	3	3	0	0
DFND101	20	4	3	0	0
DFND102	20	5	3	0	0
DFND103	20	5	3	5	0
DFND103	20	1	6	0	0
DFND104	20	2	6	0	0
DFND105	20	3	6	0	0
DFND106	20	4	6	0	0
DFND107	20	5	6	0	0
DFND108	20	5	6	5	0
DFND109	20	2	10	0	0
DFND110	20	3	10	0	0
DFND111	20	4	10	0	0
DFND112	20	5	10	0	0
DFND113	20	5	10	5	0
DFND114	20	1	10	0	0

TABLE 5.4

BOILING HEAT-TRANSFER COEFFICIENTS AND ENHANCEMENT RATIOS  
FOR SMOOTH-TUBE BUNDLE IN R-114 AT A HEAT FLUX OF 30 kW/m<sup>2</sup>

Heated Tubes	Oil (%)	Bundle Heat Transfer Coefficient (kW/m <sup>2</sup> ·K)	Enhancement Ratio
5 Instrumented	0	2.60	1.00
	1	3.02	1.16
	2	3.37	1.30
	3	3.43	1.32
	6	3.00	1.15
	10	2.17	0.83
Bundle	0	2.59	1.00
	1	3.21	1.24
	2	3.72	1.44
	3	3.60	1.39
	6	3.19	1.23
	10	2.57	0.99
Bundle plus Simulation	0	2.52	1.00
	1	3.04	1.20
	2	3.58	1.42
	3	3.69	1.46
	6	3.50	1.39
	10	2.83	1.12

TABLE 5.5

WALL-TEMPERATURES INDICATED BY THE SIX THERMOCOUPLES ON EACH  
OF THE FIVE INSTRUMENTED FINNED TUBES;  
HEAT FLUX = 95 kW/m<sup>2</sup>

Tube Number	TC 1	TC 2	TC 3	TC 4	TC 5	TC 6
	/(C)	/(C)	/(C)	/(C)	/(C)	/(C)
1	10.65	10.86	14.59	12.66	15.84	19.71
2	12.97	13.55	15.37	17.24	16.74	26.75
3	14.04	14.13	17.39	30.21	38.01	27.17
4	12.47	12.31	37.76	26.84	32.81	30.13
5	11.33	15.52	19.84	22.39	21.19	20.18

TABLE 5.6

BOILING HEAT-TRANSFER COEFFICIENTS AND ENHANCEMENT RATIOS  
FOR FINNED-TUBE BUNDLE IN R-114 AT A HEAT FLUX OF 30 kW/m<sup>2</sup>

Heated Tubes	% Oil	Bundle Heat Transfer Coefficient kW/m <sup>2</sup> ·K	Enhancement Ratio
Bundle	0	6.33	1.0
Bundle	1	6.41	1.01
Bundle	2	7.5	1.18
Bundle	3	7.73	1.22
Bundle	6	7.43	1.17
Bundle	10	6.20	.98

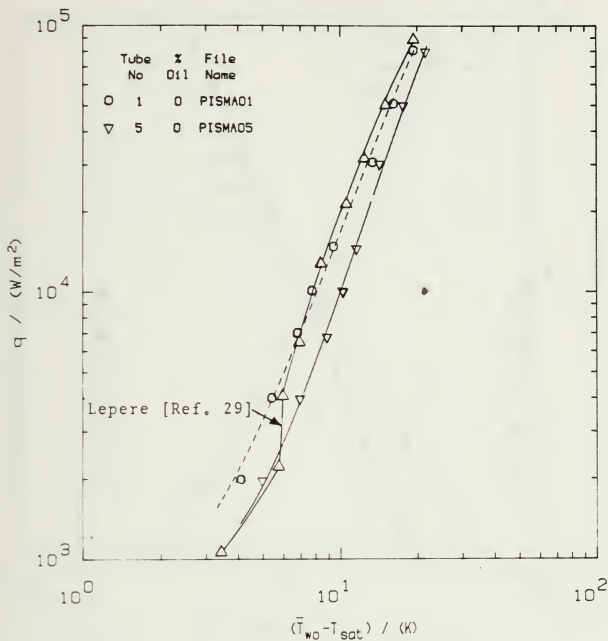


Figure 5.1 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of Single-Heated-Tube Performance of Tube Number One and Tube Number Five, Surface Preparation A, R-113

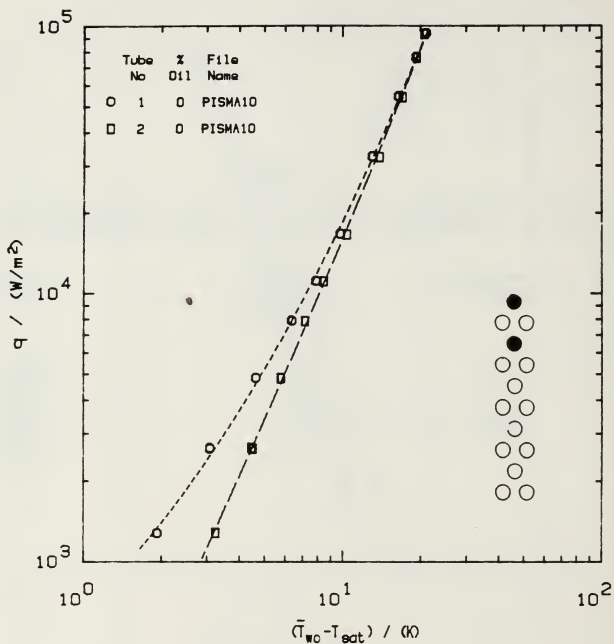


Figure 5.2 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One, Surface Preparation A, R-113

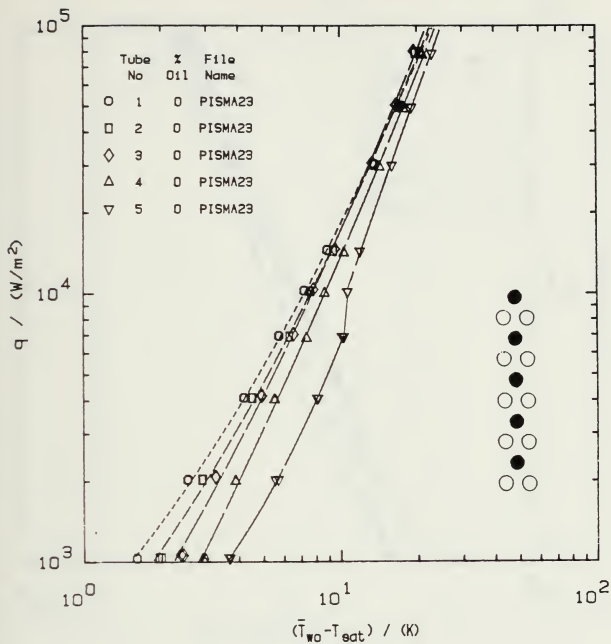


Figure 5.3 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Preparation A, R-113

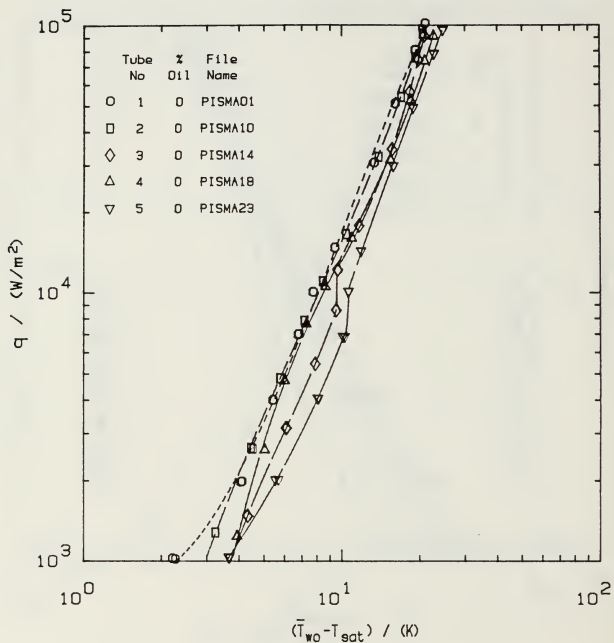


Figure 5.4 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; The Bottom Heated Tube in a Bundle Compared with Single-Heated-Tube Performance, Surface Preparation A, R-113

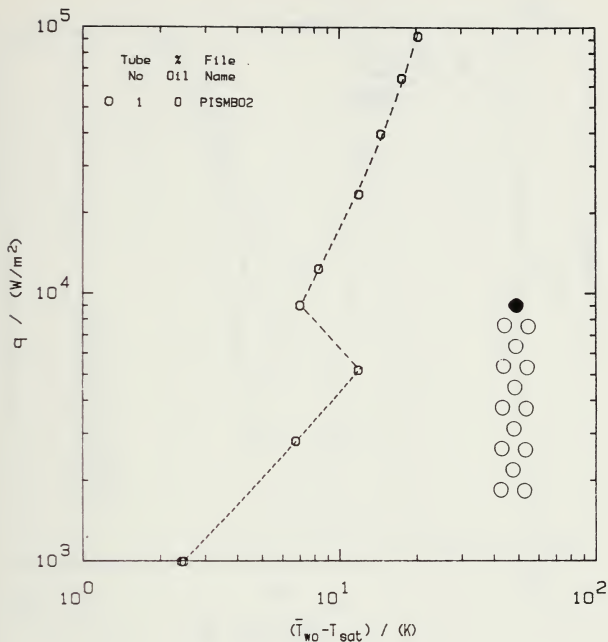


Figure 5.5 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Hysteresis Effects on Tube Number One in Single-Heated-Tube Performance, Surface Preparation B, R-113

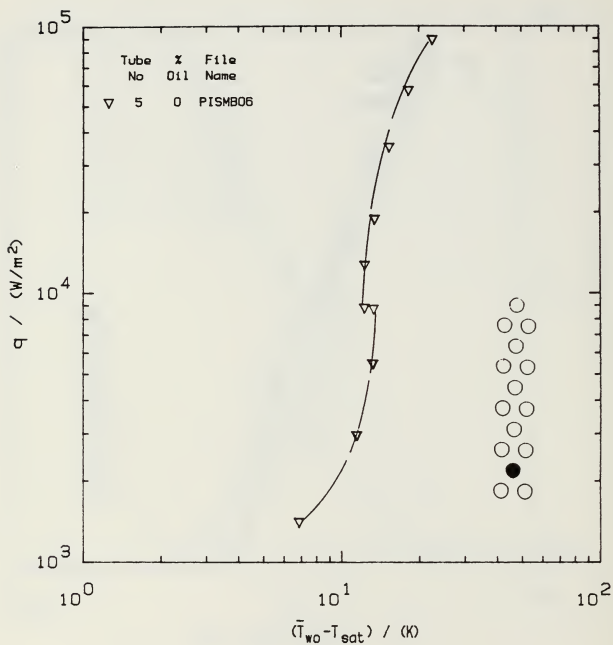


Figure 5.6 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tube Number Five in Single-Heated-Tube Performance, Surface Preparation B, R-113

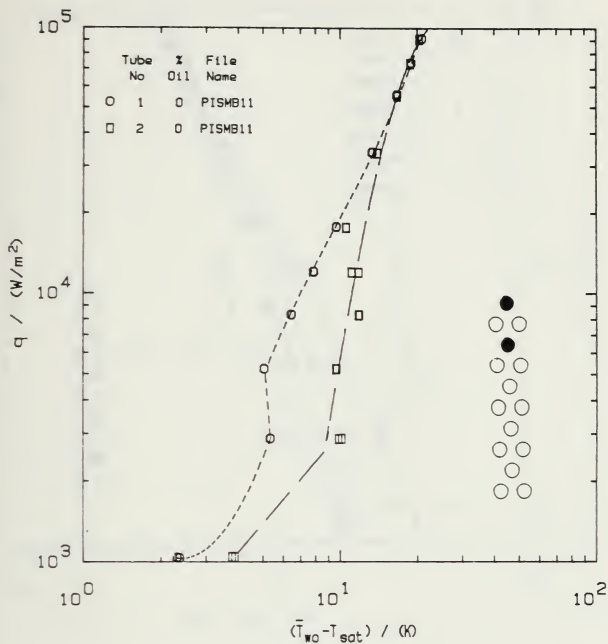


Figure 5.7 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One, Surface Preparation B, R-113

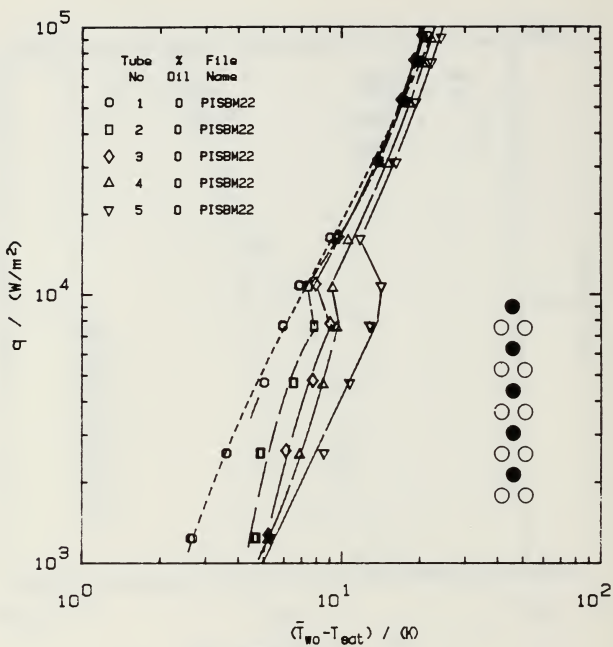


Figure 5.8 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation B, R-113

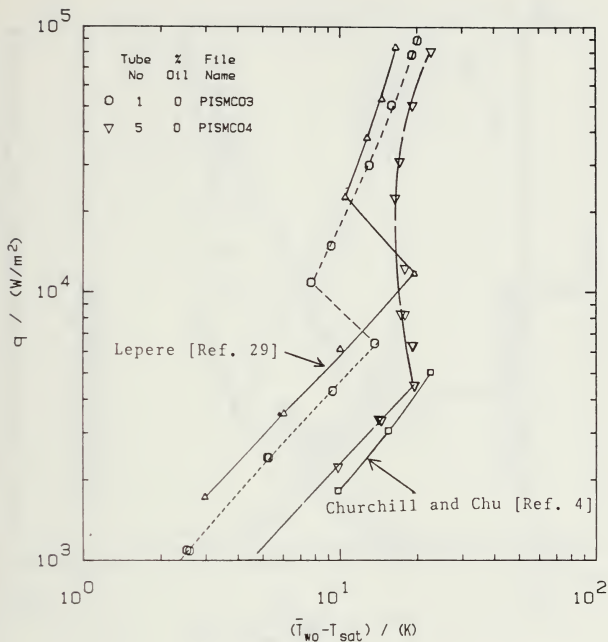


Figure 5.9 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of the Data of Lepere (1980) and the Correlation of Churchill and Chu (1975) with Tube Number One and Tube Five in Single-Heated-Tube Performance, Surface Preparation C, R-113

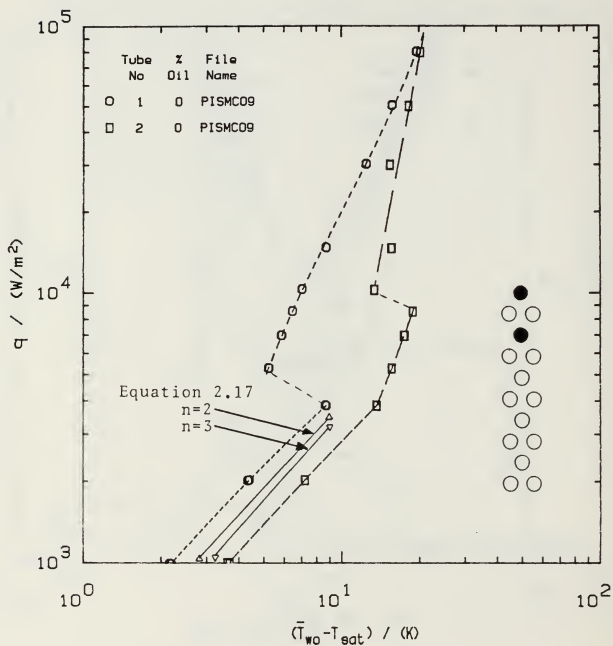


Figure 5.10 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One, Surface Preparation C, R-113

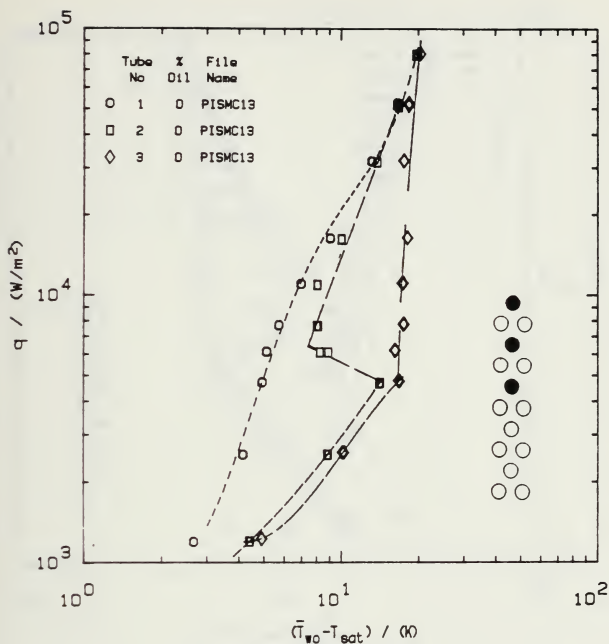


Figure 5.11 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, and Three, Surface Preparation C, R-113

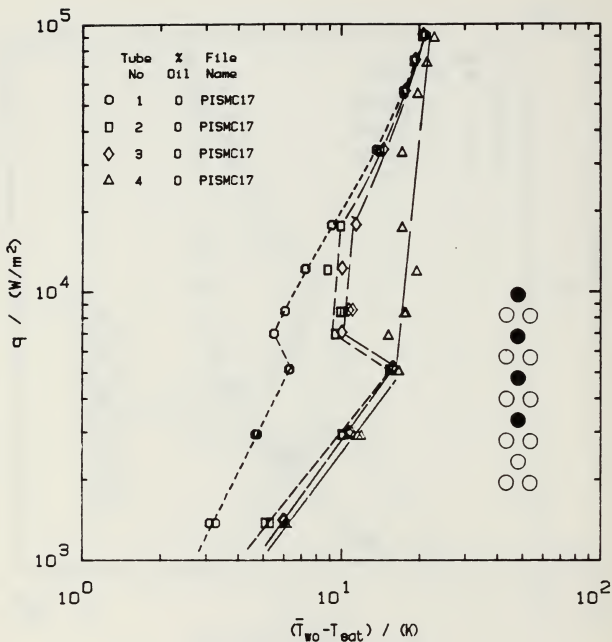


Figure 5.12 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, and Four, Surface Preparation C, R-113

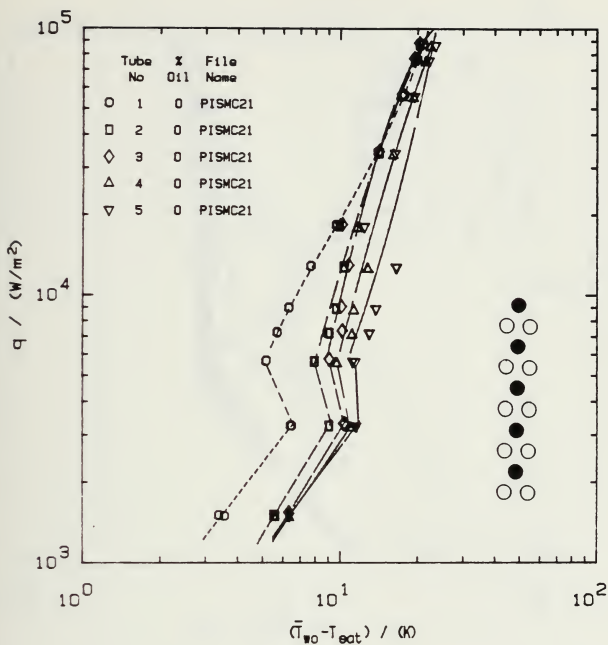


Figure 5.13 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation C, R-113

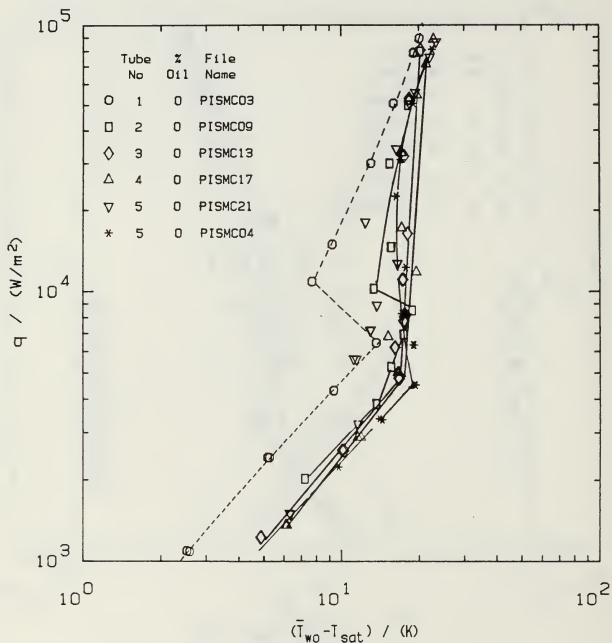


Figure 5.14 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number Two, Three, Four, and Five Compared When Operated as Bottom Heated Tube in Bundle to Tubes Number One and Five in Single-Heated-Tube Performance, Surface Preparation C, R-113

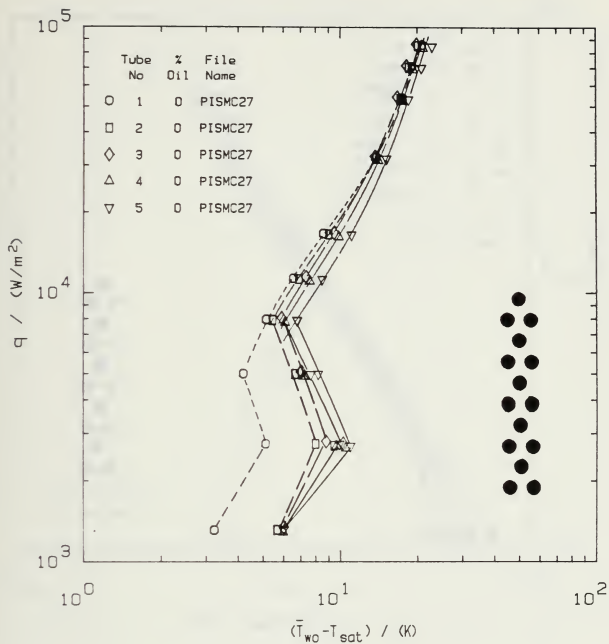


Figure 5.15 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation C, R-113

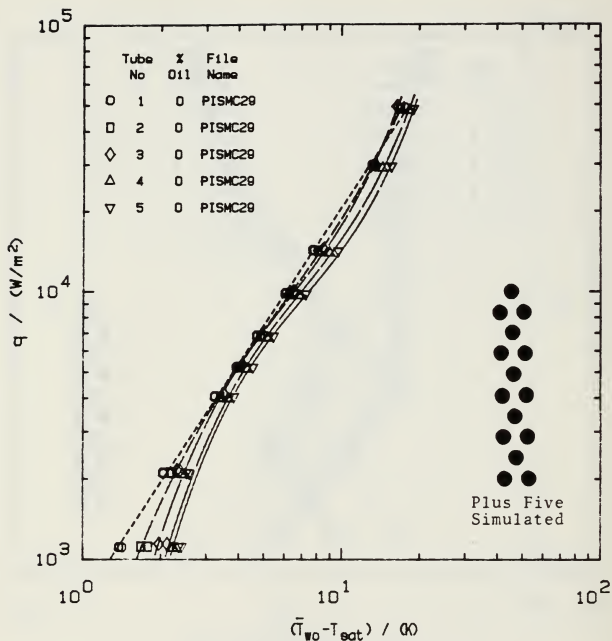


Figure 5.16 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, Surface Preparation C, R-113

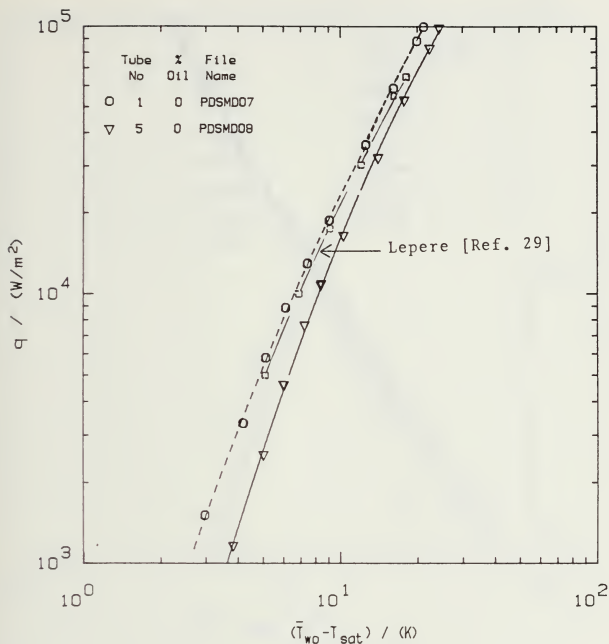


Figure 5.17 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of the Data of Lepere (1980) with the Single-Heated-Tube Performance of Tube Number One and Tube Number Five, Surface Preparation D, R-113

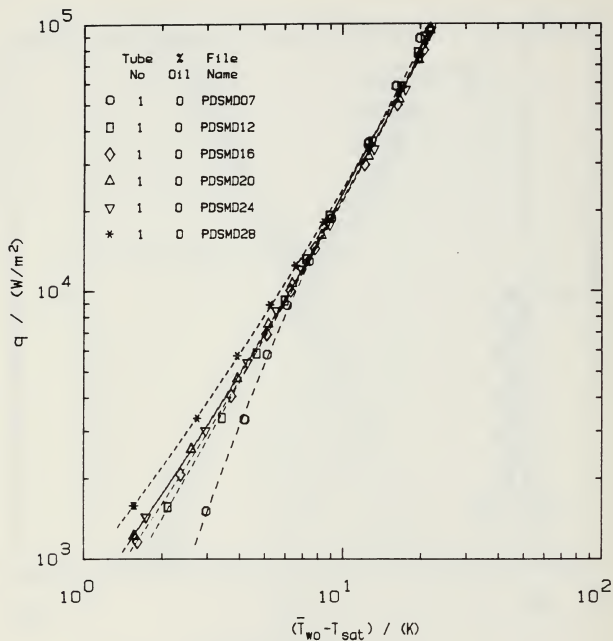


Figure 5.18 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Enhancing Effect on Tube Number One when Influenced by Increasing Numbers of Heated Tubes, Surface Preparation D, R-113

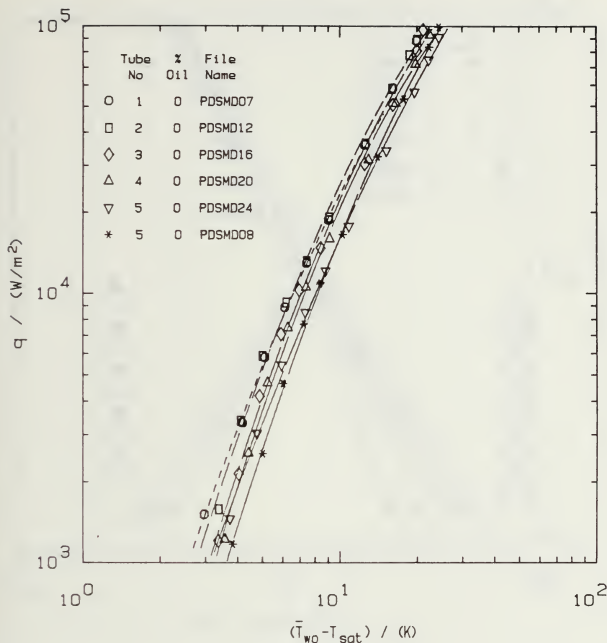


Figure 5.19 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of the Bottom Heated Tubes in a Bundle with Tube Number One and Tube Number Five in Single-Heated-Tube Performance, Surface Preparation D, R-113

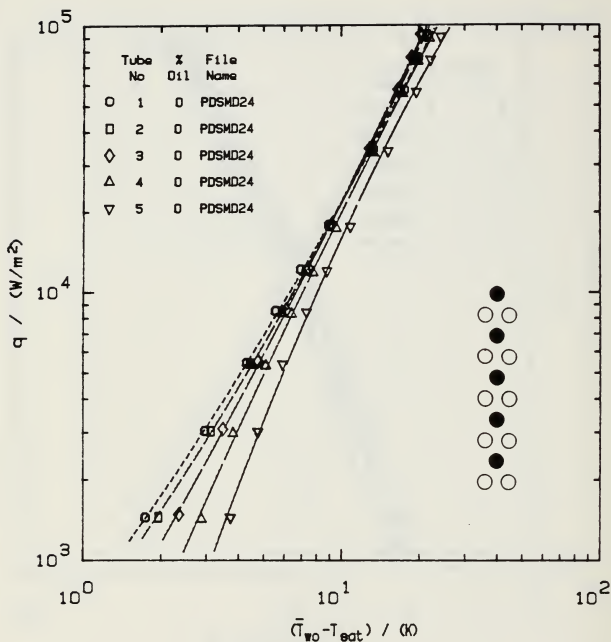


Figure 5.20 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-113

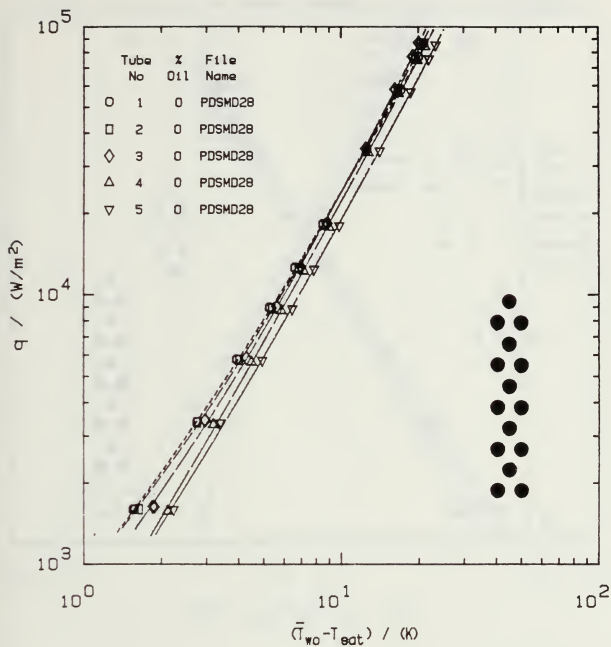


Figure 5.21 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-113

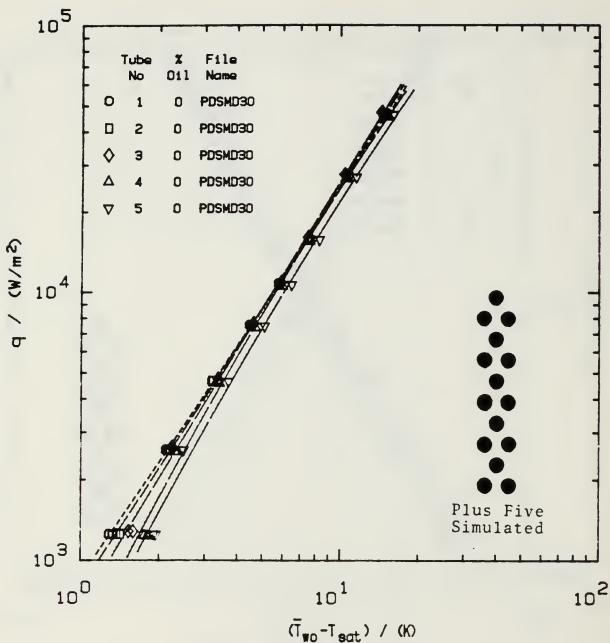


Figure 5.22 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, Surface Preparation D, R-113

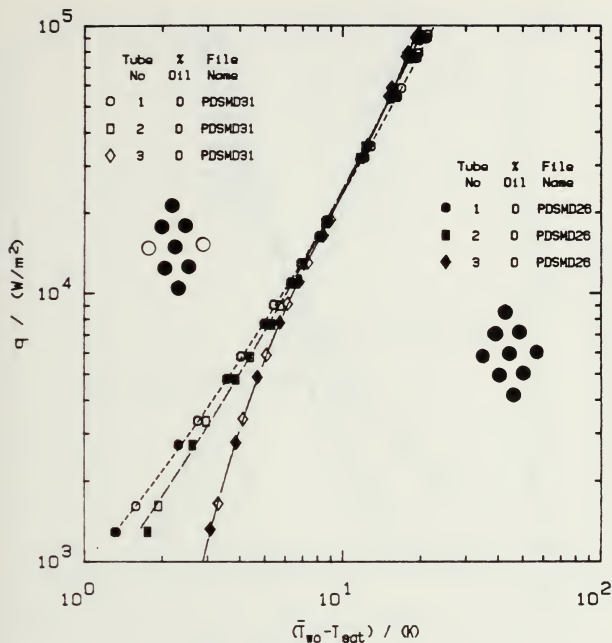


Figure 5.23 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of an Adjacent Heated Column on a Three Column Tube Bundle, Surface Preparation D, R-113

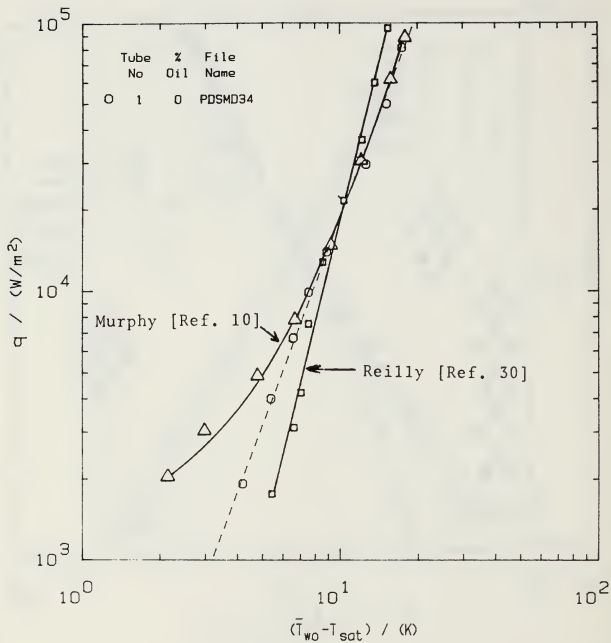


Figure 5.24 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tube Number One Compared to the Data of Murphy (1987) and Reilly (1980), Surface Preparation D, R-114

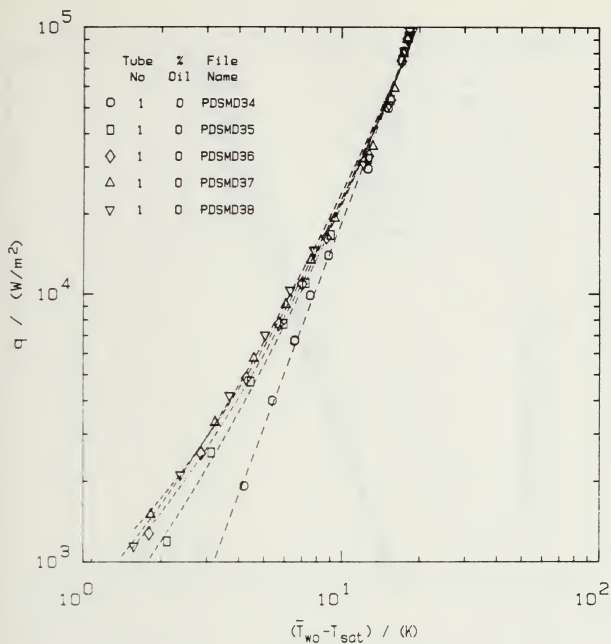


Figure 5.25 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Enhancing Effect on Tube Number One when Influenced by Increasing Numbers of Heated Tubes, Surface Preparation D, R-113

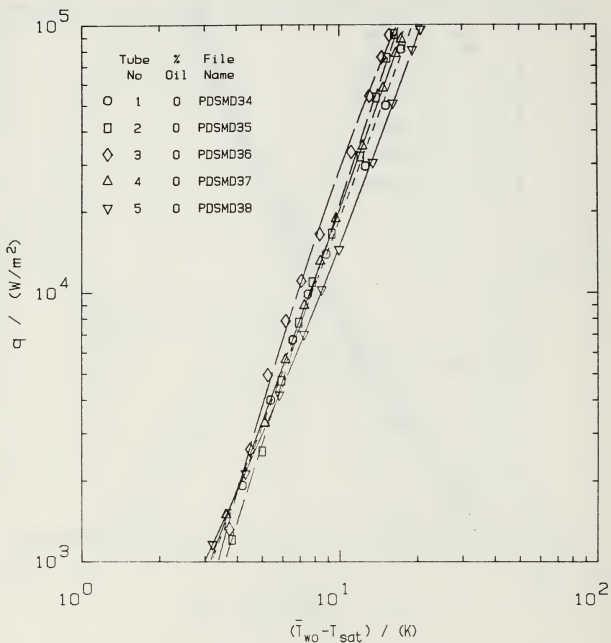


Figure 5.26 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Comparison of Bottom-Heated Tube in a Bundle with Tube Number One in Single-Heated-Tube, Performance, Surface Preparation D, R-114

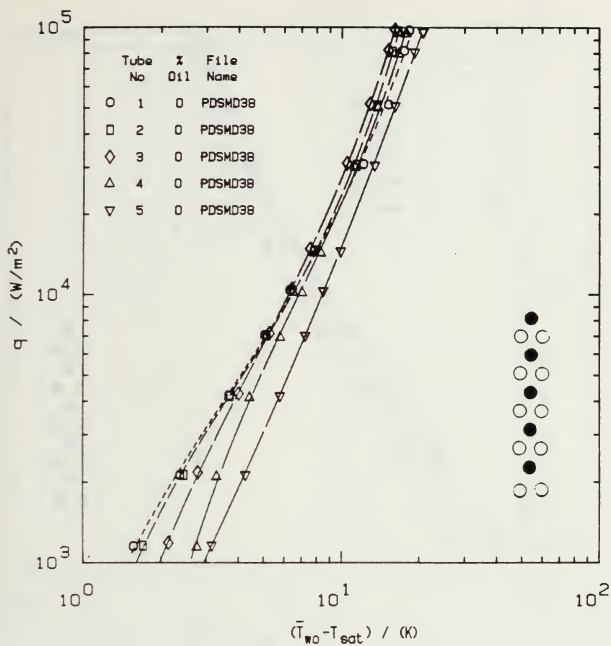


Figure 5.27 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114

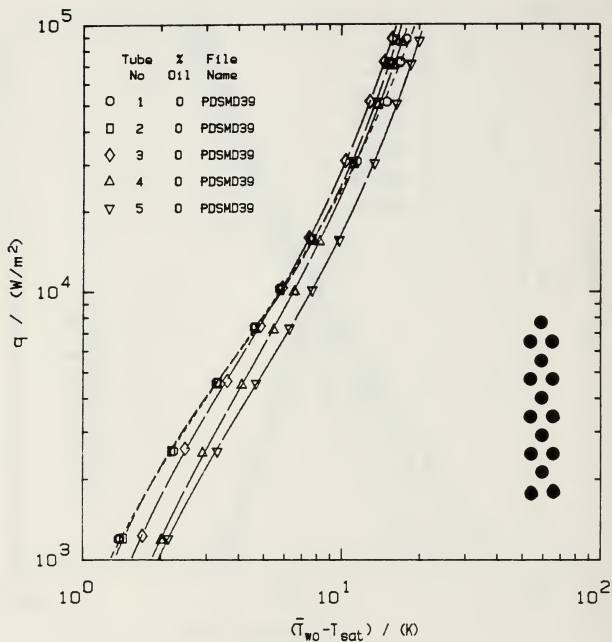


Figure 5.28 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114

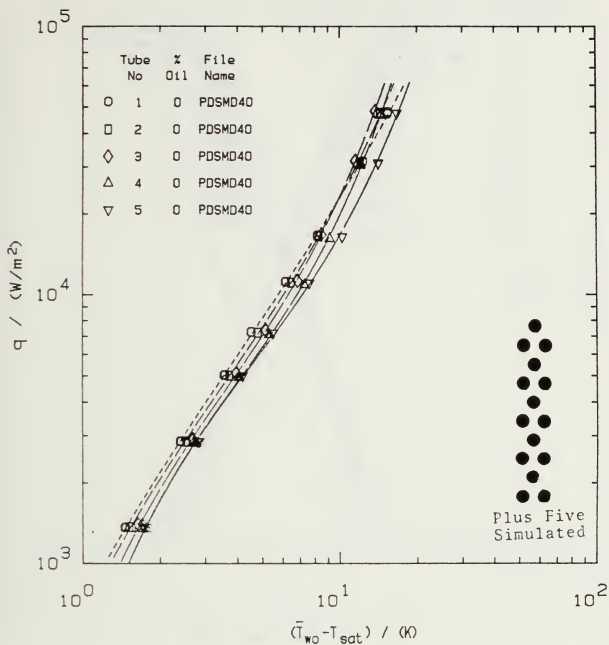


Figure 5.29 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, Surface Preparation D, R-114

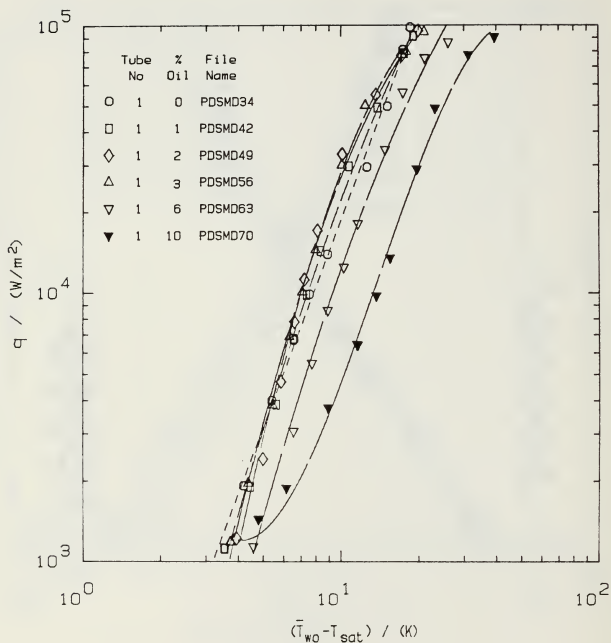


Figure 5.30 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Single-Heated-Tube Performance of Tube Number One, Varying Concentrations of Oil, Surface Preparation D, R-114

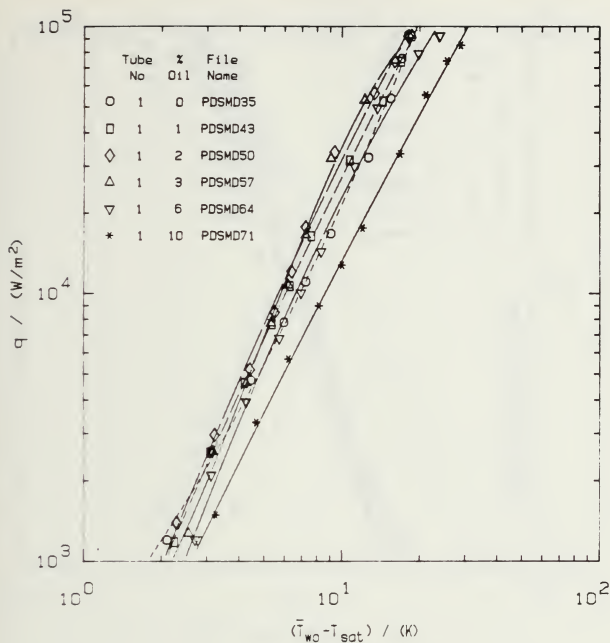


Figure 5.31 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Influence of Tube Number Two on Tube Number One in Varying Concentrations of Oil, Surface Preparation D, R-114

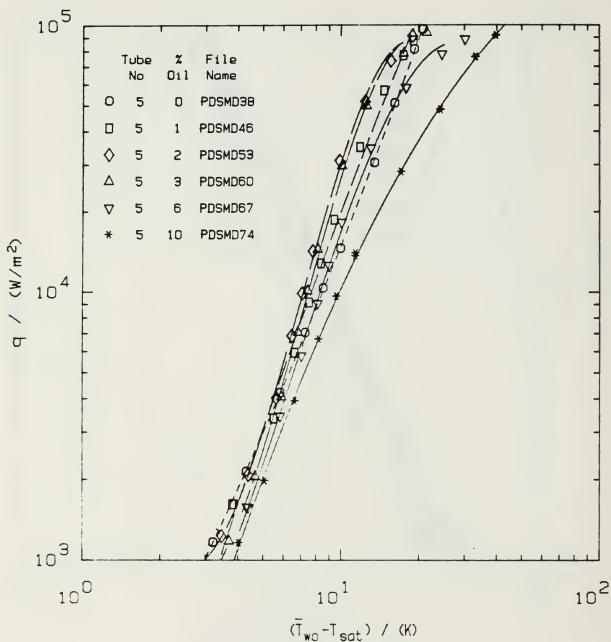


Figure 5.32 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tube Number Five when Five Instrumented Tubes Operating in Varying Concentrations of Oil, Surface Preparation D, R-114

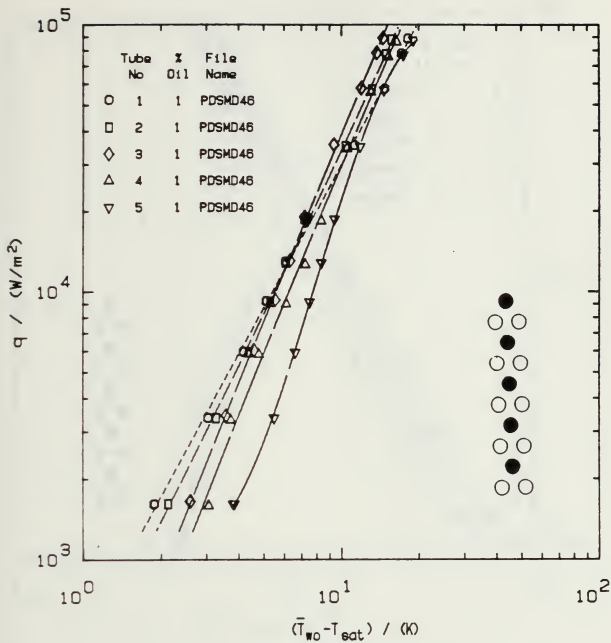


Figure 5.33 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 1% Oil

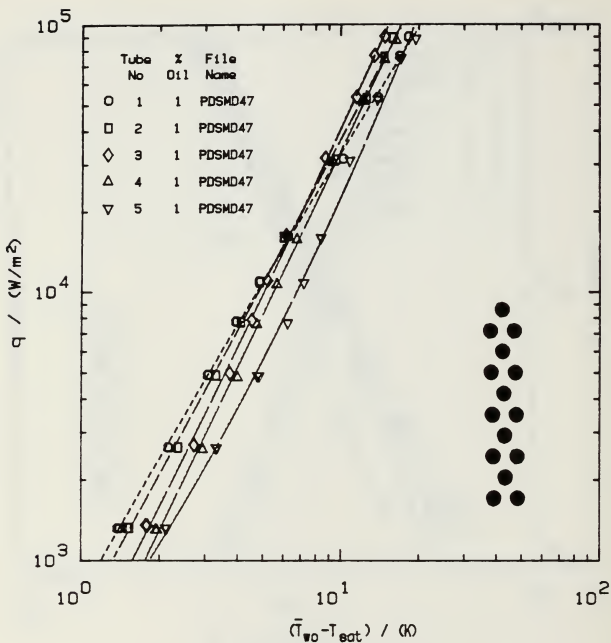


Figure 5.34 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 1% Oil

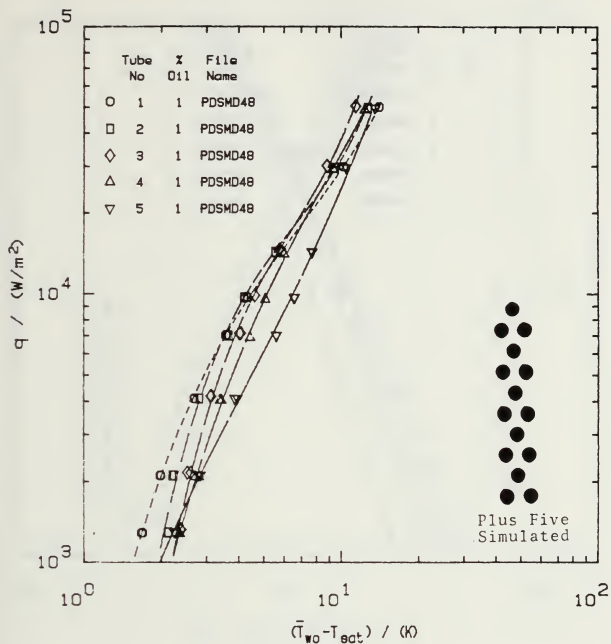


Figure 5.35 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 1% Oil

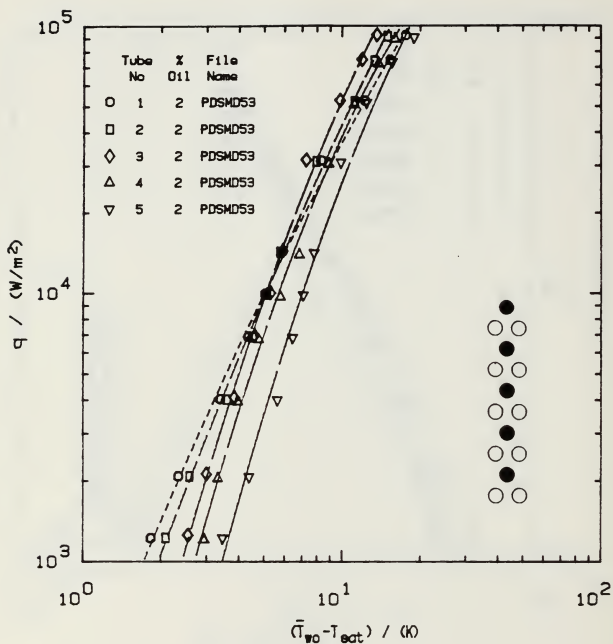


Figure 5.36 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 2% Oil

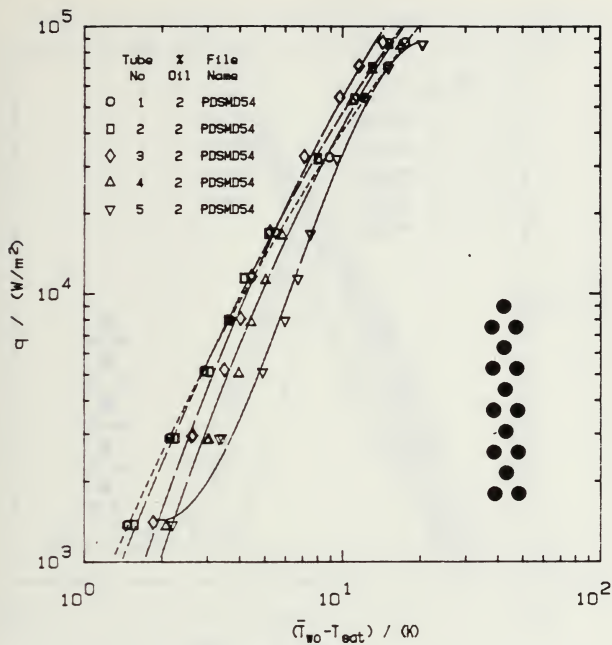


Figure 5.37 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 2% Oil

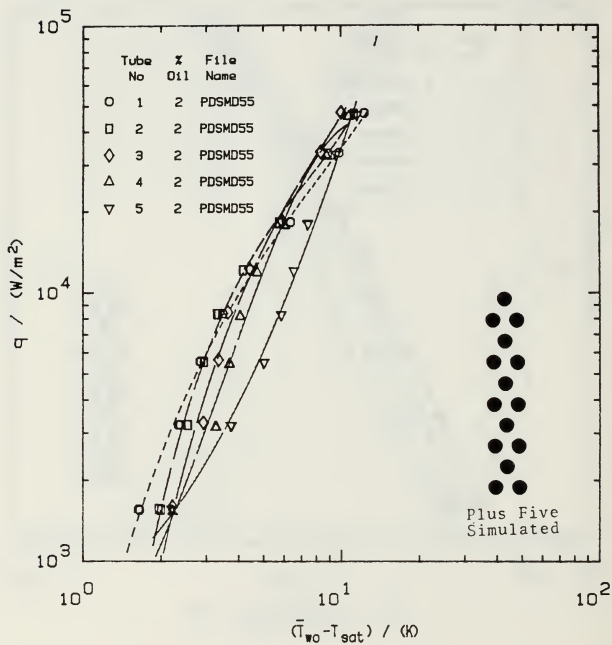


Figure 5.38 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 2% Oil

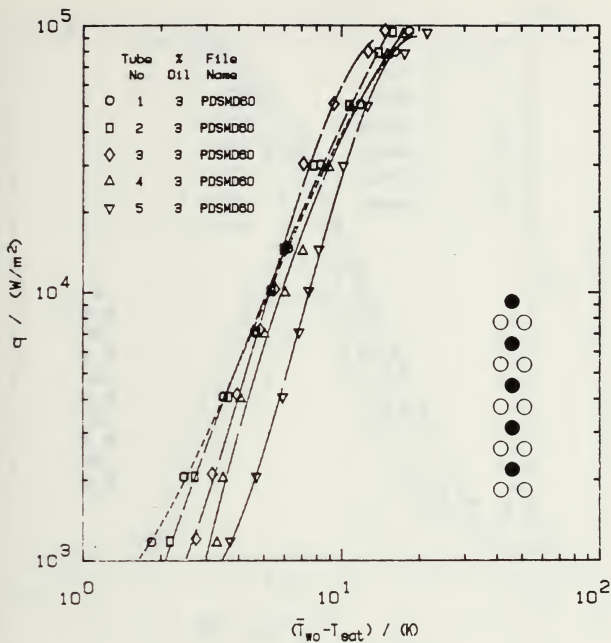


Figure 5.39 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 3% Oil

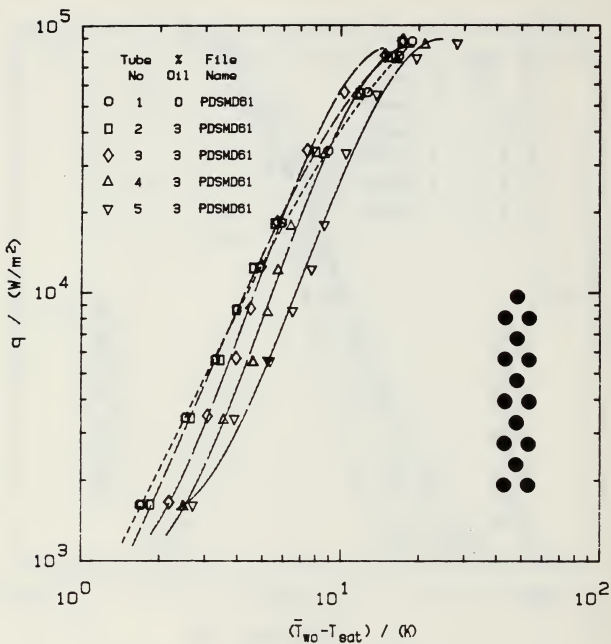


Figure 5.40 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 3% Oil

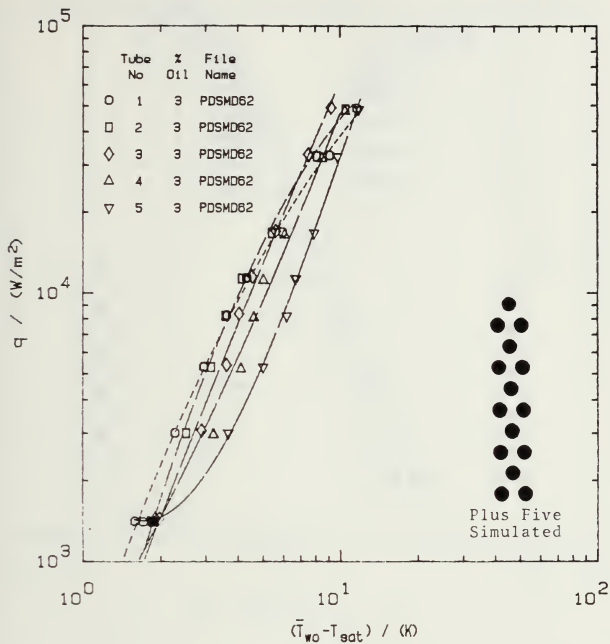


Figure 5.41 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 3% Oil

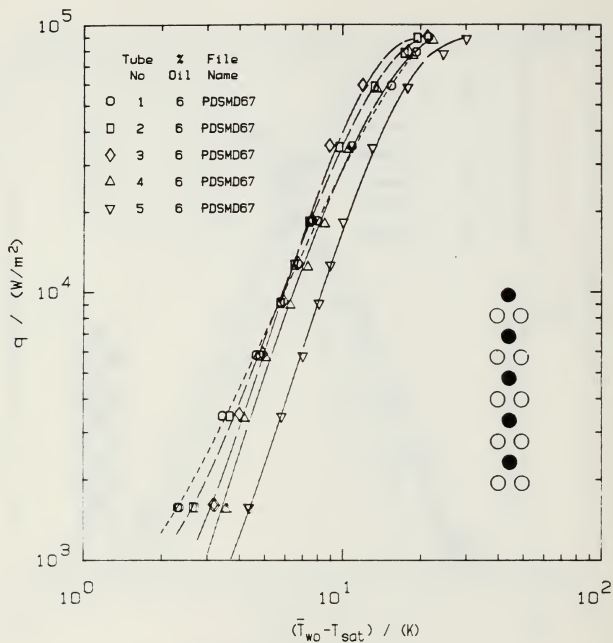


Figure 5.42 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 6% Oil

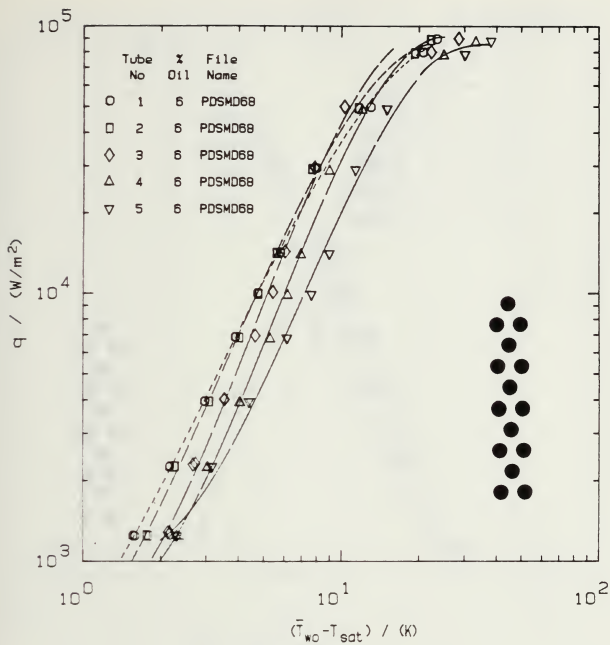


Figure 5.43 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 6% Oil

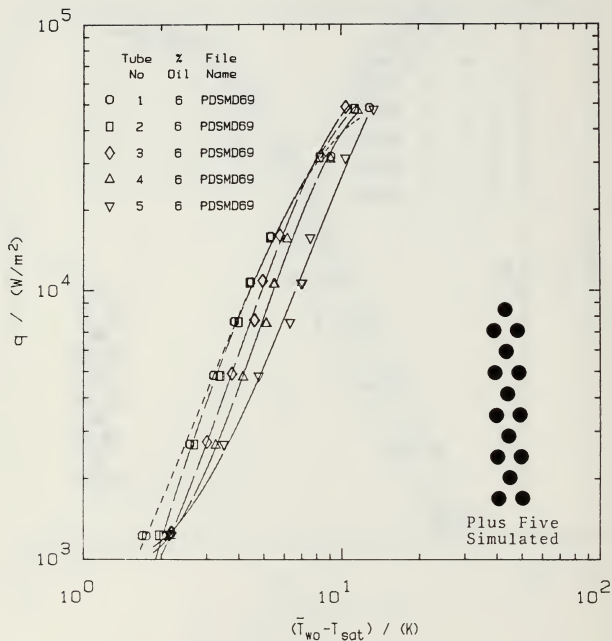


Figure 5.44 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 6% Oil

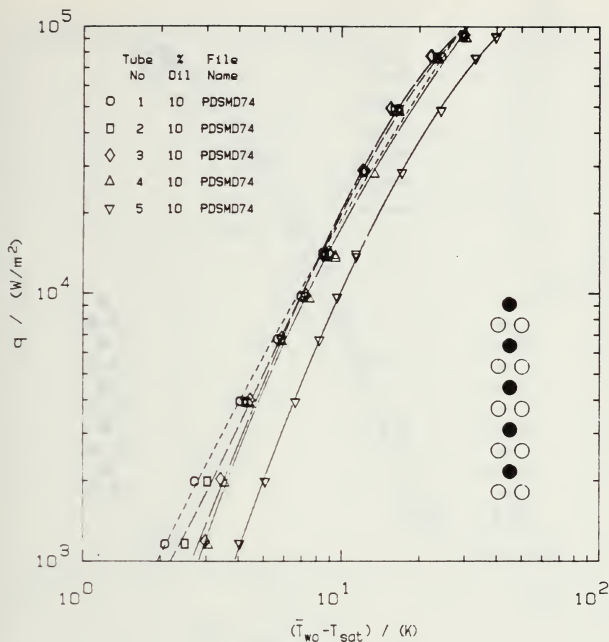


Figure 5.45 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, R-114 with 10% Oil

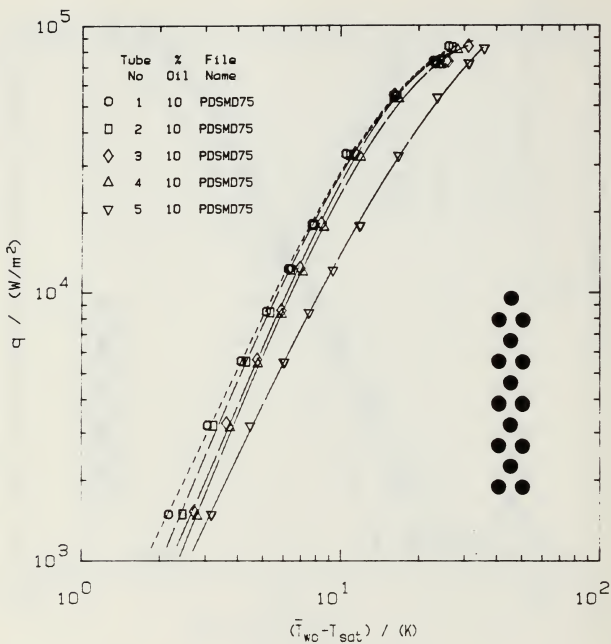


Figure 5.46 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle, Surface Preparation D, R-114 with 10% Oil

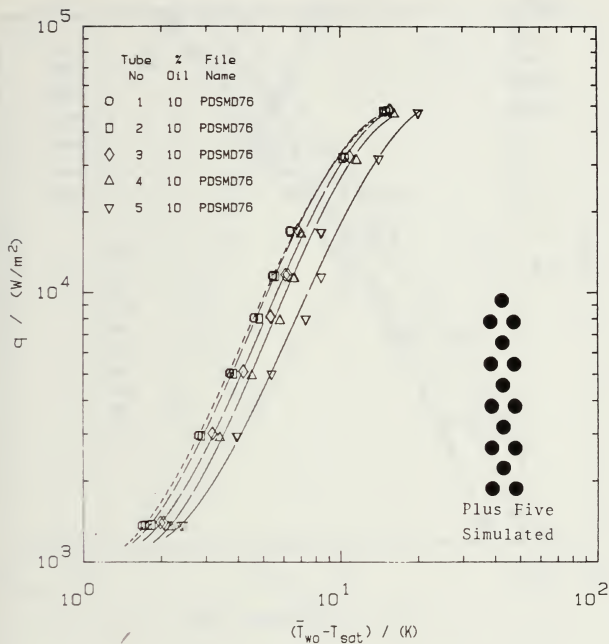


Figure 5.47 Variation of Heat Flux with Wall Superheat in Smooth-Tube Bundle; Bundle Plus Five Simulated Evaporator Tubes, R-114 with 10% Oil

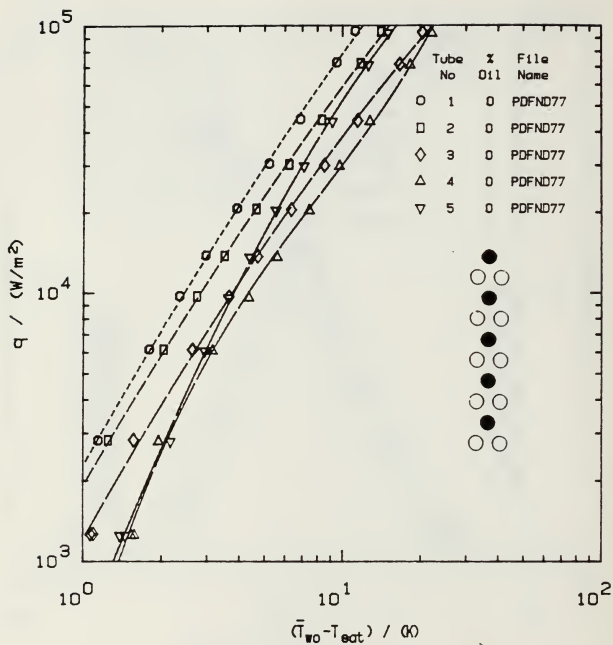


Figure 5.48 Uncorrected Variations of Heat Flux with Wall Superheat in Finned-Tube Bundle; Tubes Number One, Two, Three, Four, and Five, Surface Preparation D, with R-114

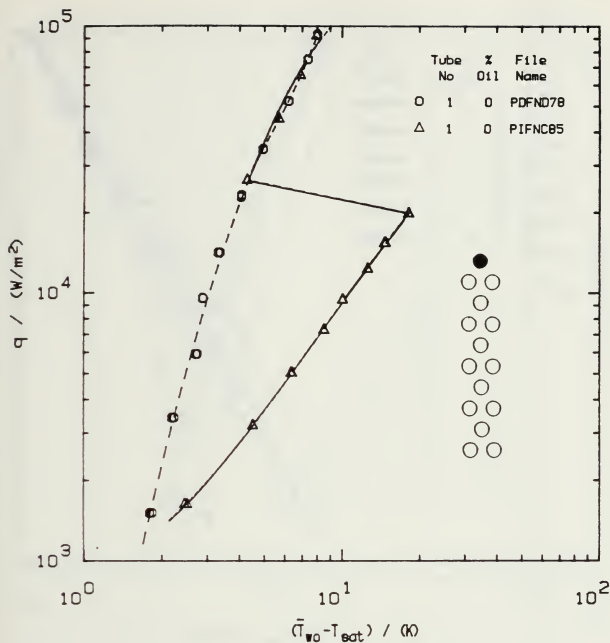


Figure 5.49 Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Comparison of Tube Number One during Increasing and Decreasing Data Runs, with R-114

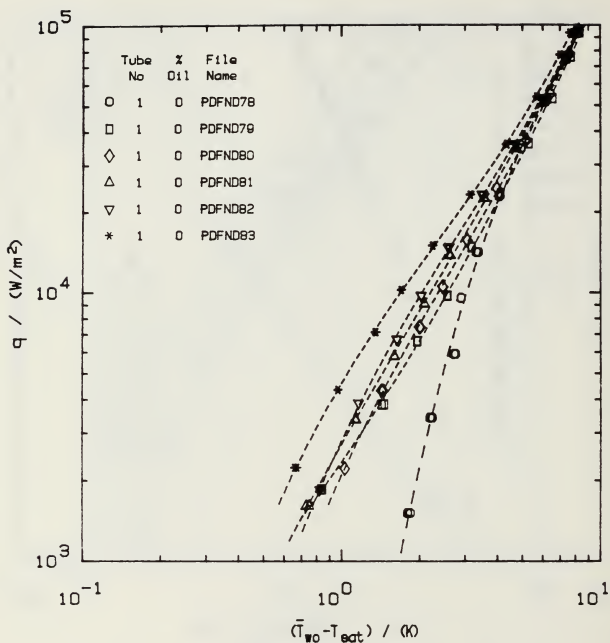


Figure 5.50 Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Enhancing Effect on Tube Number One when Influenced by Increasing Numbers of Heated Tubes, Surface Preparation D, with R-114

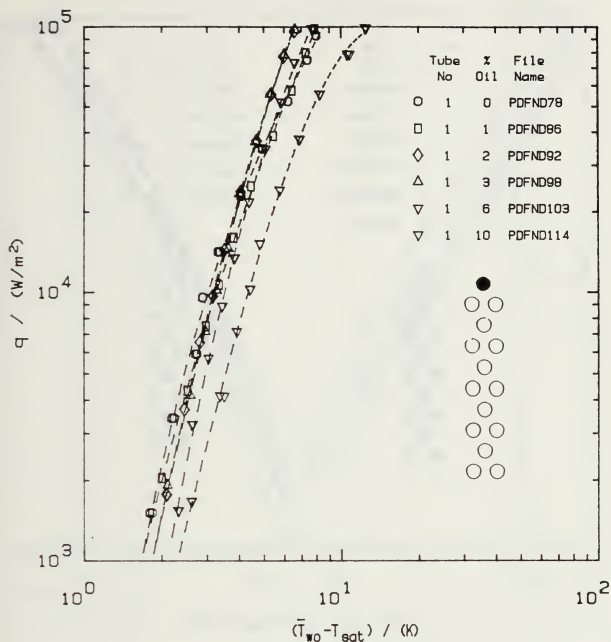


Figure 5.51 Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Single-Heated-Tube-Performance Tube Number One in Varying Concentrations of Oil, Surface Preparation D, with R-114

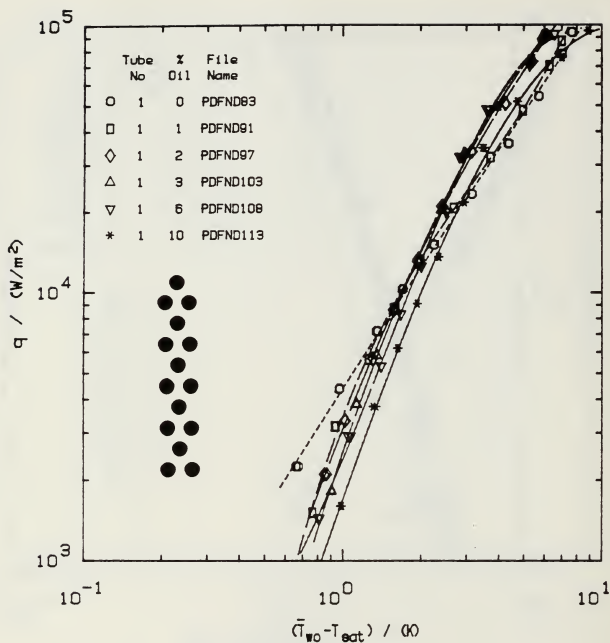


Figure 5.52 Variation of Heat Flux with Wall Superheat in Finned-Tube Bundle; Effect of Varying Oil Concentrations on Tube Number One with the Bundle Operating, Surface Preparation D, with R-114

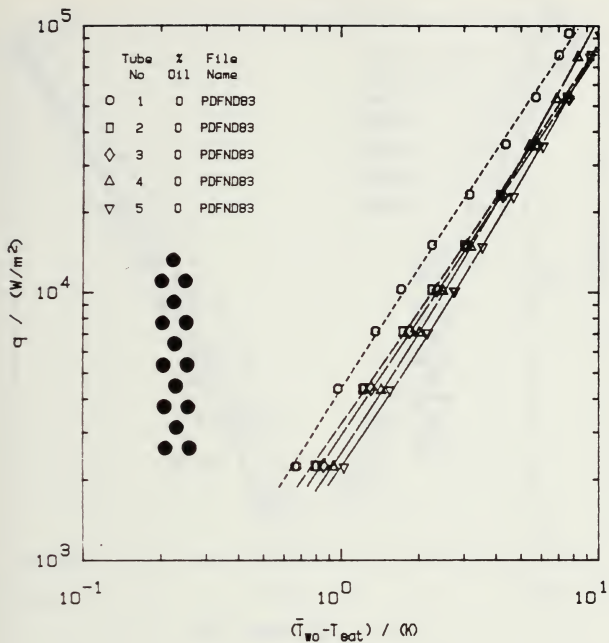


Figure 5.53 Variation of Heat Flux with Wall Superheat for Finned-Tube Bundle; Bundle, Surface Preparation D, R-114

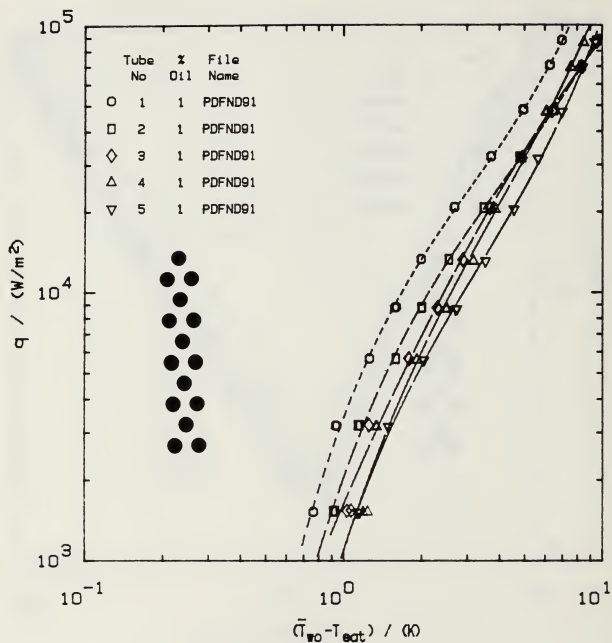


Figure 5.54 Variation of Heat Flux with Wall Superheat for Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 1% Oil

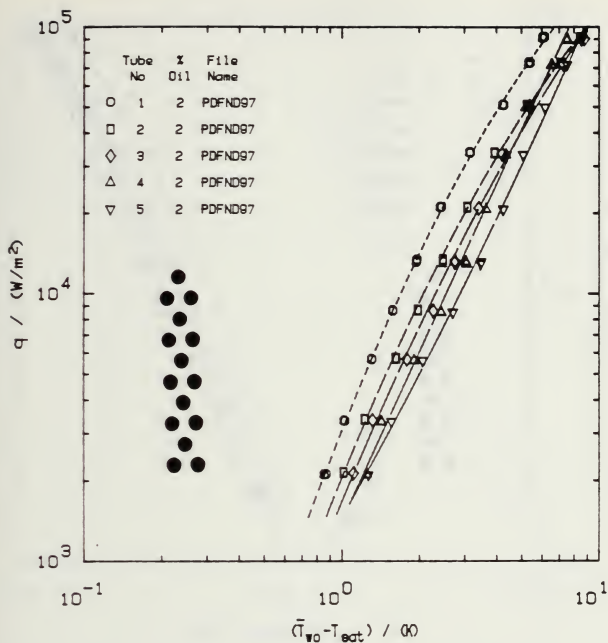


Figure 5.55 Variation of Heat Flux with Wall Superheat for Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 2% Oil

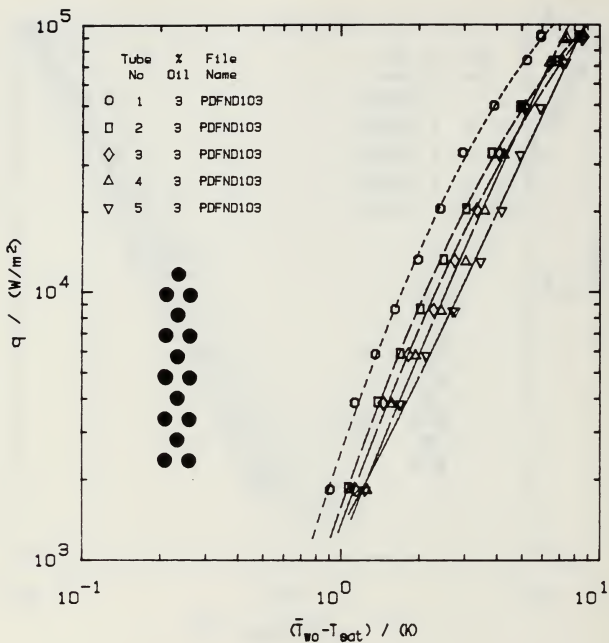


Figure 5.56 Variation of Heat Flux with Wall Superheat for Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 3% Oil

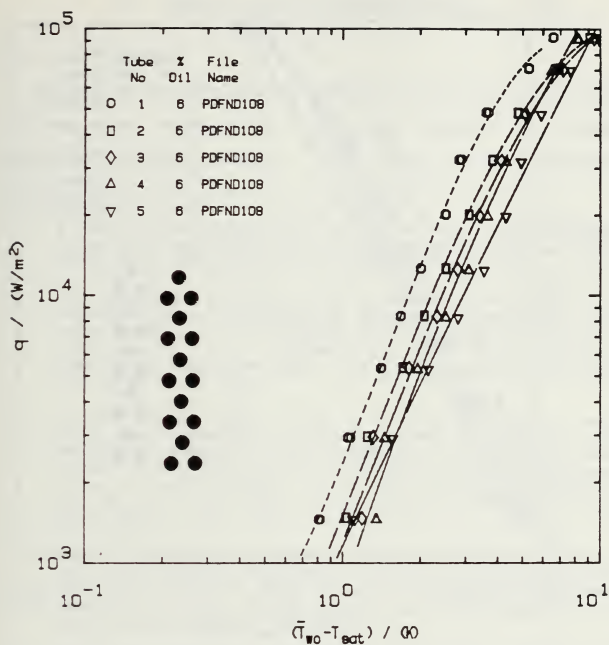


Figure 5.57 Variation of Heat Flux with Wall Superheat for Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 6% Oil

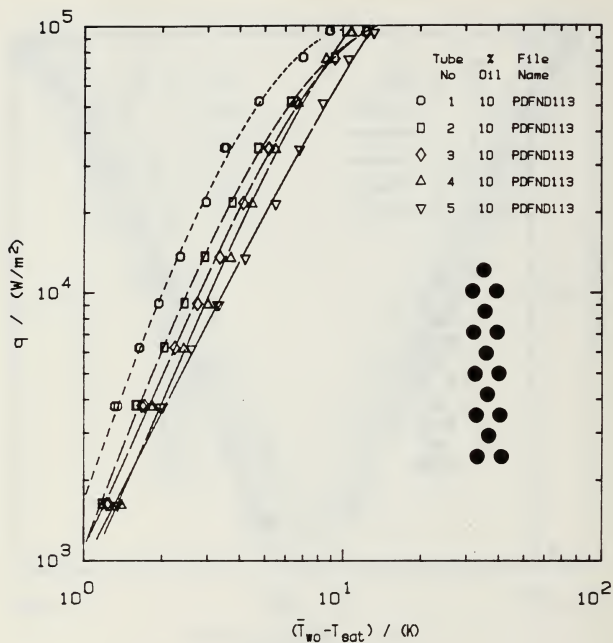


Figure 5.58 Variation of Heat Flux with Wall Superheat for Finned-Tube Bundle; Bundle, Surface Preparation D, R-114 with 10% Oil

## VI. CONCLUSIONS AND RECOMMENDATIONS

### A. CONCLUSIONS

Heat-transfer data during boiling of R-113 and R-114/oil mixtures from smooth and finned-tube bundles have been presented in this thesis. They lead to the following conclusions:

1. A multi-tube apparatus with five fully instrumented tubes was tested for the heat-transfer performance of evaporator tube bundles in R-114/oil mixtures.
2. A computer program (DRP-4) was developed for acquisition and reduction of data collected during the experiments. The program has the capabilities of collecting and processing data, reprocessing previously collected data, and plotting processed data stored in plot files.
3. A smooth-tube bundle and a finned-tube bundle were fully instrumented, installed, and tested in the evaporator section of the apparatus. The smooth-tube bundle was tested in R-113 with surface preparations A, B, C, and D as well as in R-114 and oil mixtures. The finned-tube bundle was tested in R-114 and oil mixtures.
4. Use of simulation heaters during increasing heat flux data runs showed hysteresis effects to be eliminated even at the lowest heat fluxes. Subsequent data were therefore taken during decreasing heat-flux runs, which do not exhibit hysteresis.
5. The heat-transfer performance of the finned-tube bundle is more than twice that of the smooth-tube bundle, for both pure R-114 and R-114/oil mixtures.
6. The presence of oil, up to 3% by mass, improves heat-transfer performance of smooth- and finned-tube bundles. At an oil concentration of 10%, only a slight degradation of heat transfer (as compared to the case of pure R-114) was found. Maximum performance was obtained at an oil concentration of

around 2% in the case of the smooth-tube bundle and around 3% in the case of the finned-tube bundle.

## B. RECOMMENDATIONS

Based on the results of the present experiments and the experience gained in assembling and operating the apparatus, the following recommendations are made:

1. The instrumented finned tubes must be remade using smaller-diameter heaters and a thicker wall sleeve between the heater and the thermocouple junction. Data with the newly-instrumented tubes must then be collected.
2. A small hard-piped circulation pump can be added to the apparatus so that experimentation temperatures of the system can be maintained when the system is not in use. This will eliminate countless hours of unnecessary waiting to stabilize the system prior to increasing heat-flux runs.
3. Improve the mechanism by which oil is added to the system (a graduated cylinder could be used).
4. Replace the ball valves at inlet to the condenser tubes with flow-control valves so that the amount of cooling provided can be controlled more accurately.
5. Replace the simulation and auxiliary heaters with ones having a larger surface area. The replacement is to avoid freon decomposition problems caused by exceeding the critical heat flux.
6. Investigate the possibility of installing a photo light inside the apparatus for picture-taking capability.
7. More enhanced-surface tubes (i.e., Turbo-B, High Flux, and GEWA-T) need to be tested.

## APPENDIX A

### DATA REDUCTION PROGRAM

```

10001 FILE NAME: DRP4
10041 DATE: November 22, 1988
10081 REVISED:
10121
1016 BEEP
1020 PRINTER IS 1
1024 Idp=0
10281
1032 PRINT USING "4X,""Select option default is 0:"""
1036 PRINT USING "6X,""0 Taking data or re-processing previous data""
1040 PRINT USING "6X,""1 Plotting data on Log-Log ""
1044 PRINT USING "6X,""2 Plotting data on Linear""
1048 PRINT USING "6X,""3 Purge""
1052 PRINT USING "6X,""4 Fixup""
1056 PRINT USING "6X,""5 Move""
1060 PRINT USING "6X,""6 Comb""
1064 PRINT USING "6X,""7 Read Plot""
10681
10721 IDP IS A PROGRAM VARIABLE TO SELECT A SUBROUTINE
1076 INPUT Idp
1080 IF Idp=0 THEN CALL Main
1084 IF Idp=1 THEN CALL Plot
1088 IF Idp=2 THEN CALL Plin
1092 IF Idp=3 THEN CALL Purg
1096 IF Idp=4 THEN CALL Fixup
1100 IF Idp=5 THEN CALL Move
1104 IF Idp=6 THEN CALL Comb
1108 IF Idp=7 THEN CALL Readplot
1112 END
11161
1120 SUB Main
11241 ICAL=THERMOCOUPLE CALIBRATION
1128 COM /C/ C17)
1132 DIM Emf(34),T(34),Dia(6),D2a(6),Dia(6),Doa(6),La(6),Lua(6),Kcua(6),Et(19),
Ldte(4),Vole(2),Amp(11),Twe(4),Tw(4),Theta(4),Thetab(4),Q(4),Q1(4),Qdp(4)
1136 DIM Htube(4)
1140
11441 THERMOCOUPLE ARRAY (C17) INITIALIZATION
1148 DATA 0.10086091,25727.94369,-767345.8295,78025595.81
1152 DATA -9247486585,6.97688E+11,-2.66192E+13,3.94078E+14
1156 READ C17
1160
11641 PRINT HEADER AND INITIALIZE TIME CLOCK
1168 PRINTER IS 701
1172 BEEP
1176 INPUT "ENTER MONTH, DATE AND TIME (MM-DD-HH-MM SS)",Date$
1180 OUTPUT DIRECTED TO DATA ACQUISITION SYSTEM (HP 3497A)
1184 OUTPUT 709: "TO":Date$
1188 OUTPUT 709: "TO"
1192 ENTER 709.Date$
1196 PRINT
1202 PRINT Month, date and time "":Date$

```

```

1204 PRINT
1208 PRINT USING "10X,""NOTE: Program name : DRP4""
1212 BEEP
1216!
1220! DN IS THE VARIABLE FOR DISC NUMBER FOR RECORD KEEPING ONLY
1224 INPUT "ENTER DISK NUMBER",Dn
1228 PRINT USING "16X,""Disk number = "",Z2";Dn
1232 BEEP
1236 Im=0
1240 INPUT "ENTER INPUT MODE (0=3497A,1=FILE) 0=DEFAULT",Im
1244!
1248! INPUT MODE ZERO IS FROM THE DATA AQUISITION SYSTEM
1252 IF Im=0 THEN
1256     BEEP
1260     INPUT "GIVE A NAME FOR THE RAW DATA FILE",D2file$
1264     PRINT USING "16X,""File name: "",14A";D2file$
1268!
1272!     CREATE BDAT FILE ON THE MASS STORAGE MEDIA
1276     CREATE BDAT D2file$,60
1280!     CREATE AN INPUT/OUTPUT LINK TO OPEN FILES
1284     ASSIGN @File2 TO D2file$
1288!
1292!     CREATE DUMMY FILE UNTIL Nrun KNOWN
1296     Difile$="DUMMY"
1300     CREATE BDAT Difile$,60
1304     ASSIGN @File1 TO Difile$
1308     OUTPUT @File1;Date$
1312!
1316!     CREATE A PLOT FILE
1320     BEEP
1324     INPUT "GIVE A NAME FOR THE PLOT FILE",Pfile$
1328     CREATE BDAT Pfile$,30
1332     ASSIGN @Plot TO Pfile$
1336     BEEP
1340!
1344!     IDTC = NUMBER (TOTAL) OF DEFECTIVE THERMOCOUPLES
1348     INPUT "ENTER NUMBER OF DEFECTIVE TCS (0=DEFAULT)",ldtc
1352!     LDTC = LOCATION OF DEFECTIVE THERMOCOUPLE
1356!
1360     IF ldtc=0 THEN
1364         PRINT USING "16X,""No defective TCs exist""
1368     ELSE
1372         PRINT USING "16X,""Defective Thermocouples Indicated by -99.99""
1376     END IF
1380!
1384     BEEP
1388!     DEFECTIVE THERMOCOUPLES MAY BE IN CHANNELS 40-69
1392!     THERMO COUPLES ARE ENTERED AS DFECTIVE BY COMPUTER CHANNEL NR.
1396!     JDTC=COUNTER IN LOOP FOR DEFECTIVE THERMOCOUPLES
1400!
1404     IF ldtc 0 THEN
1408         FOR Jdtc=0 TO ldtc-1
1412             INPUT "ENTER DEFECTIVE TC LOCATION (BY COMPUTER CHANNEL NUMBER)
",Ldte(Jdte)
1416             BEEP
1420             NEXT Jdte
1424     END IF

```

```

1428     PRINTER IS 701
1432     OUTPUT @File1:Ldte(*)
1436 |
1440 |     Im=1 option (THIS OPTION ALLOWS DATA ENTRY WITH DATA FILE)
1444     ELSE
1448         BEEP
1452         INPUT "GIVE THE NAME OF THE EXISTING DATA FILE",D2file$
1456         PRINT USING "16X,""File name: """,14A";D2file$
1460         ASSIGN @File2 TO D2file$
1464         ENTER @File2:Nrun
1468         ENTER @File2:Dold$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
1472         BEEP
1476         INPUT "GIVE A NAME FOR PLOT FILE",Pfile$
1480         CREATE BDAT Pfile$,30
1484         ASSIGN @Plot TO Pfile$
1488         PRINT USING "16X,""This data set taken on : """,14A";Dold$
1492     END IF
1496     IF Im=1 THEN GOTO 1736
1500     PRINTER IS 1
1504 |
1508     IF Im=0 THEN
1512         PRINT USING "4X,""Select tube type""
1516         PRINT USING "6X,"" 0   Smooth ""
1520         PRINT USING "6X,"" 1   FINNED 19/IN (DEFAULT)""
1524         PRINT USING "6X,"" 2   HIGH FLUX""
1528         PRINT USING "6X,"" 3   TURBO-B""
1532         PRINT USING "6X,"" 4   GROWTH""
1536         PRINT USING "6X,"" 5   GROWTH""
1540         PRINT USING "6X,"" 6   GROWTH""
1544 |         ITT=TUBE TYPE
1548         INPUT Itt
1552         OUTPUT @File1:Itt
1556     END IF
1560     PRINTER IS 701
1564     Itt=1
1568     PRINT USING "16X,""Tube Type: """,DD".Itt
1572 |
1576     BEEP
1580     Bop=0
1584     INPUT "ENTER BULK OIL % (DEFAULT=0%) ",Bop
1588     OUTPUT @File1:Bop
1592     PRINT USING "16X,""Bulk oil%=""",DD".Bop
1596 |
1600     BEEP
1604 |     NHT=NUMBER OF HEATED TUBES
1608     Nht=5
1612     INPUT "Enter number of heated instrumented tubes(default=5)",Nht
1616     OUTPUT @File1:Nht
1620     PRINT USING "16X,""Number of heated instrumented tubes=""",DD".Nht
1624     BEEP
1628 |
1632 |     Natp=Number of active dummy pairs
1636     Natp=0
1640     INPUT "Enter number of active dummy pairs (Default=0)",Natp
1644     OUTPUT @File1:Natp
1648     PRINT USING "16X,""Number of active dummy pairs=""",DD".Natp
1652     BEEP

```

```

1656!
1660! NRT=NUMBER OF ADDED HEATED TUBES TO ENHANCE BUNDLE EFFECT
1664 Nrt=0
1668 INPUT "Enter number of added heated tubes from simulation heaters(Default=
0)",Nrt
1672 OUTPUT @File1:Nrt
1676 PRINT USING "16X","Number of added heated tubes(from simulation heaters)="
",DD":Nrt
1680 BEEP
1684!
1688! CORR IS CORRECTION FOR INSTRUMENTED TUBE HEIGHT
1692 Corr=0
1696 INPUT "WANT TO CORRECT TSAT FOR TUBE HEIGHT (0=YES(DEFAULT),1=NO)",Corr
1700 IF Corr=0 THEN PRINT USING "16X","TSAT is corrected instrumented heat
ed tube height""
1704 IF Corr=1 THEN PRINT USING "16X","TSAT is NDT corrected for instrumen
ted heated tube height""
1708 OUTPUT @File1:Corr
1712 BEEP
1716 ILQV=INPUT MODE: LIQUID, VAPOR,OR LIQUID VAPOR AVERAGE
1720 Ilqv=0
1724 INPUT "SELECT (0=LIQ(default),1=VAP,2=(LIQ+VAP)/2)",Ilqv
1728!
1732! DIA=Diameter at thermocouple positions (meters)
1736 DATA .0122,0.0081,0,0,0,0,0
1740 READ Dia(*)
1744 D1=Dia(1)
1748!
1752! D2=Diameter to base of fins (outside dia for smooth)(meters)
1756 DATA .0158,0.0127,0,0,0,0,0
1760 READ D2a(*)
1764 D2=D2a(1)
1768!
1772! D1=Inside diameter of unenhanced ends (meters)
1776 DATA .0132,0.0091,0,0,0,0,0
1780 READ Dia(*)
1784 D1=Dia(1)
1788!
1792! Do=Outside diameter of unenhanced ends (meters)
1796 DATA .0158,0.0127,0,0,0,0,0
1800 READ Doa(*)
1804 Do=Doa(1)
1808!
1812! L=Length of enhanced surface (meters)
1816 DATA .2032,.2032,.2032,.2032,.2032,.2032,.2032
1820 READ La(*)
1824 L=La(1)
1828!
1832! Lu=CORRECTED Length of unenhanced surface at the ends (METERS)
1836 LU=LFIN + THICKNESS/2
1840 DATA .0261,.0263,0,0,0,0,0
1844 READ Lua(*)
1848 Lu=Lua(1)
1852!
1856! LV=corrected length of 3 inch finned lile end
1860 DIM Lva(5)
1864 DATA .0769,.0771,0,0,0,0,0

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```

1868 READ Lva(*)
1872 Lv=Lva(1tt)
1876! Kcua=Thermal Conductivity of tube
1880! DATA 401,0,0,0,0,0,0
1884! READ Kcua(*)
1888! Kcu=Kcua(1tt)
1892 A=PI*(Do^2-Di^2)/4
1896 P=PI*Do
1900 J=1
1904 Sx=0
1908 Sy=0
1912 Sxs=0
1916 Sxy=0
1920 Repeat: I
1924!
1928 IF Im=0 THEN
1932! Dtid=desired temperature of liquid
1936 Dtid=2.2
1940 Ido=2
1944 ON KEY 0,15 RECOVER 1920
1948 PRINTER IS 1
1952 PRINT USING "4X,""SELECT OPTION ""
1956 PRINT USING "6X,""0=TAKE DATA""
1960 PRINT USING "6X,""1=SET HEAT FLUX""
1964 PRINT USING "6X,""2=SET Tsat (DEFAULT)""
1968 PRINT USING "4X,""NOTE: KEY 0 = ESCAPE""
1972! Ido=desired option
1976 BEEP
1980 INPUT Ido
1984!
1988 BEEP
1992! Set default value for input
1996 IF Ido>2 THEN Ido=2
2000! Take data option
2004 IF Ido=0 THEN 2408
2008!
2012! LOOP TO SET HEAT FLUX (FOR TOP INSTRUMENTED TUBE)
2016 IF Ido=1 THEN
2020 Dqdp=100000
2024 PRINT USING "4X,""Qdp QDPsim Nrt Qdpau-
Qtot 10.
2028 PRINT USING "4X,""(W/m^2) (W/m^2) (W/m^2)
(W)"
2032 Err=1
2036! Reset, read channel 25=30, automatic scaling
2040! Channel 25=au. amps, 26=sim amps, 27=inst volts, 28=sim volts, 29=aux
volts, 30=inst amps
2044 OUTPUT 709."AR AF25 AL30 VRS"
2048 FOR I=10 TO 11
2052 OUTPUT 709."AS SA"
2056 ENTER 709.Amp(I)
2060 NEXT I
2064 FOR I=0 TO 2
2068 OUTPUT 709."AS SA"
2072 ENTER 709.Volt(I)
2076 NEXT I
2080 OUTPUT 709."AS SA"
2084 ENTER 709.Amp(0)

```

```

2088! Calculate actual heat flux
2092 Q(0)=60*Volt(0)*Amp(0)
2096 Qdp(0)=Q(0)/(PI*D2*L)
2100 Qsim=60*20*Volt(1)*Amp(11)
2104 Qdpsim=Qsim/(PI*.0160*.2032*3)
2108 Qaux=60*20*Volt(2)*Amp(10)
2112 Qdpaux=Qaux/(PI*.0160*.1778*4)
2116 Qtot=Q(0)*Nht+Qsim+Qaux
2120 Nrt=Qdpsim/Qdp(0)
2124 IF ABS(Aqdp-Qdp)>Err THEN
2128     IF Aqdp>Qdp THEN
2132         BEEP 4000,.2
2136     ELSE
2140         BEEP 250,.2
2144     END IF
2148     IF Nrt<.1 THEN Nrt=0
2152     IF Qdpaux<100 THEN Qdpaux=0
2156     IF Qdpsim<100 THEN Qdpsim=0
2160     PRINT USING "4X,2(M2.3DE,2X),2X,(M0.00),2X,2(M2.3DE,2X)":Qdp
(0),Qdpsim,Nrt,Qdpaux,Qtot
2164     WAIT 2
2168     GOTO 2044
2172 END IF
2176 END IF
2180!
2184! LOOP TO SET Tsat
2188 IF Idot=2 THEN
2192     IF Idt=1 THEN 2208
2196     BEEP
2200     INPUT "ENTER DESIRED Tsat (DEFAULT=2.2 C)",D1d
2204     Idt=1
2208     Old1=0
2212     Old2=0
2216     Nn=1
2220     Nrs=Nn MOD 15
2224     Nn=Nn+1
2228     IF Nrs=1 THEN
2232         PRINT USING "4X," DTsat      T1d1      T1d2      Tvav
T1av      ***
2236     END IF
2240     Read thermocouple voltages for vapor, liquid
2244     OUTPUT 709:"AR AF0 AL4 VRS"
2248     Sample each thermocouple 20 times and report temp for each the
rmocouple, vapor=0,1,2, liquid=3&4
2252     FOR I=0 TO 4
2256         Sum=0
2260         OUTPUT 709,"AS SA"
2264         FOR J=1 TO 20
2268             ENTER 709:E1iq
2272             Sum=Sum+E1iq
2276         NEXT J
2280         Emf(I)=Sum/20
2284         T(I)=FNTvsv(Emf(I))
2288     NEXT I
2292     Compute average temperature of liquid
2296     T1av=(T(3)+T(4))*5
2300     compute average temperature of vapor

```

```

2304      Tvav=(T(0)+T(1)+T(2))/3
2308      IF ABS(Tlav-Dtld)>.2 THEN
2312          IF Tlav>Dtld THEN
2316              BEEP 4000,.2
2320          ELSE
2324              BEEP 250,.2
2328          END IF
2332      ELSE
2336          IF ABS(Tlav-Dtld)>.1 THEN
2340              IF Atld>Dtld THEN
2344                  BEEP 3000,.2
2348              ELSE
2352                  BEEP 800,.2
2356              END IF
2360          END IF
2364      END IF
2368      Err1=Tlav-Old1
2372      Old1=Tlav
2376      Err2=Tvav-Old2
2380      Old2=Tvav
2384      PRINT USING "4X,5(MDDD.DD,3X)":Dtld,T(3),T(4),Tvav,Tlav
2388      WAIT 2
2392      GOTO 2220
2396      END IF
2400
2404      TAKE DATA IF Im=0 LOOP
2408      IF I>ol=1 THEN 2420
2412          BEEP
2416          Ikol=1
2420          OUTPUT 709."AR AF0 AL4 VRS"
2424          FOR I=0 TO 4
2428              OUTPUT 709."AS SA"
2432              Sum=0
2436              FOR Ji=1 TO 20
2440                  ENTER 709.E
2444                  Sum=Sum+E
2448                  IF I>2 THEN Et(Ji-1)=E
2452              NEXT Ji
2456              Kd1=0
2460              IF I>2 THEN
2464                  Eave=Sum/20
2468                  Sum=0.
2472                  FOR Ji=0 TO 19
2476                      IF ABS(Et(Ji)-Eave)>.50E-6 THEN
2480                          Sum=Sum+Et(Ji)
2484                      ELSE
2488                          Kd1=Kd1+1
2492                      END IF
2496                  NEXT Ji
2500                  IF I 2 THEN PRINT USING "4X,""Kd1 = "",DD",Kd1
2504                      IF Kd1 10 THEN
2508                          BEEP
2512                          BEEP
2516                          PRINT USING "4X,""Too much scattering in data - re
peat data set
2520                      GOTO 1948
2524                  END IF

```

```

2528             END IF
2532             Emf(I)=Sum/(20-Kd1)
2536         NEXT I
2540         OUTPUT 709:"AR AF40 AL69 VR5"
2544         FOR I=5 TO 34
2548             OUTPUT 709:"AS SA"
2552             Sum=0
2556             FOR J1=1 TO 5
2560                 ENTER 709:E
2564                 Sum=Sum+E
2568             NEXT J1
2572             Emf(I)=Sum/5
2576         NEXT I
2580!
2584!         READ VOLTAGES (27=Inst,28=Sim,29=Aux)
2588         OUTPUT 709:"AR AF27 AL29 VR5"
2592         FOR I=0 TO 2
2596             OUTPUT 709:"AS SA"
2600             ENTER 709:Volt(I)
2604         NEXT I
2608!
2612!         READ CURRENTS (30-34=Inst tubes,35-39=ACTIVE Dummy)
2616         OUTPUT 709:"AR AF30 AL39 VR5"
2620         FOR I=0 TO 9
2624             OUTPUT 709:"AS SA"
2628             ENTER 709:Amp(I)
2632         NEXT I
2636!         Read Currents(25=Aux amps,26=Sim amps)
2640         OUTPUT 709:"AR AF25 AL26 VR5"
2644         FOR I=10 TO 11
2648             OUTPUT 709:"AS SA"
2652             ENTER 709:Amp(I)
2656         NEXT I
2660         ELSE
2664             ENTER @File2:Emf(*),Volt(*),Amp(*)
2668         END IF
2672!
2676!         CONVERT EMF'S TO TEMP,VOLT,CURRENT
2680         FOR I=0 TO 34
2684             T(I)=FNTvsv(Emf(I))
2688             IF I>4 AND Idtc>0 THEN
2692                 FOR I1=0 TO Idtc-1
2696                     IF Ldte(I1)=I-4+39 THEN T(I)=-99.99
2700                 NEXT I1
2704             END IF
2708         NEXT I
2712!         Ntc=nr of thermocouples
2716         Ntc=6
2720         FOR I1=0 TO 4
2724             Q(I1)=60*Volt(0)*Amp(I1)
2728!         Twa=Average temperature of the wall
2732         Twa(I1)=0
2736         Ndtc=0
2740         FOR I=1 TO Ntc
2744             Nn is counter in temp array, start at 5 (this is the first th
ermocouple in the tube bank)
2748             Nn=I1*5+1+4

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2752         IF ABS(T(Nn))>.99 THEN
2756             T(Nn)=-.99
2760             Ndtc=Ndtc+1
2764         ELSE
2768             Twa(I1)=Twa(I1)+T(Nn)
2772         END IF
2776     NEXT I
2780     Twa(I1)=Twa(I1)/(6-Ndtc)
2784     NEXT I1
2788     Tlav=(T(3)+T(4))/2
2792     Tvav=(T(0)+T(1)+T(2))/3
2796
2800     Tcu=Twa(0)
2804     Kcu=FNKcu(Tcu)      !THERMAL CONDUCTIVITY OF COPPER
2808     !IF CURVE FIT NOT AVAIL USE ARRAY KCU(*)
2812     FOURIER CONDUCTION EQUATION WITH CONTACT RESISTANCE NEGLECTED
2816     FOR I=0 TO 4
2820         Tw(I)=Twa(I)-Q(I)*LOG(D2/D1)/((2*PI*Kcu*L)
2824         IF Ilqv=0 THEN Txs=Tlav
2828         IF Ilqv=1 THEN Txs=Tvav
2832         IF Ilqv=2 THEN Txs=(Tlav+T(2))*0.5
2836         IF Corr=1 THEN Thetab(I)=Tw(I)-Txs
2840         IF Corr=0 THEN Thetab(I)=Tw(I)-(Txs+.056+I*.129) !R-114
2844         IF Corr=0 THEN Thetab(I)=Tw(I)-(Txs+.054+I*.144) !R-113
2848     NEXT I
2852
2856     COMPUTE VARIOUS PROPERTIES
2860     Tfilm=(Tw(0)+Txs)*.5 !FILM TEMPERATURE
2864     Rho=FNRRho(Tfilm)    !DENSITY
2868     Mu=FNMu(Tfilm)       !VISCOSITY
2872     K=FNK(Tfilm)         !THERMAL CONDUCTIVITY
2876     Cp=FNCP(Tfilm)       !SPECIFIC HEAT
2880     Beta=FNBeta(Tfilm)   !THERMAL EXPANSION
2884     Nu=Mu/Rho             !KINEMATIC VISCOSITY
2888     Alpha=K/(Rho*Cp)     !THERMAL DIFFUSIVITY
2892     Pr=Nu/Alpha           !PRANDTL
2896
2900     COMPUTE NATURAL-CONVECTIVE HEAT-TRANSFER COEFFICIENT
2904     FOR UNENHANCED END(S)
2908     Lu=Lua(1tt)
2912     Hbar=190
2916     Fe=(Hbar*P/(Kcu*A))*.5*Lu
2920     Tanh=FNtanh(Fe)
2924     Thetab(0)=Thetab(0)+Tanh/Fe
2928     Xs=(9.81*Beta*Thetab(0)*Do^3*Tanh/(Fe*Nu*Alpha))*.166667
2932     Ys=(1+(.559/Pr)*(9/16))^(8/27)
2936     Hbarc=K/Do*.6+.367*Xs/Ys*.2
2940     IF ABS((Hbar-Hbarc)/Hbarc)>.001 THEN
2944         Hbar=(Hbar+Hbarc)*.5
2948     GOTO 2916
2952     END IF
2956
2960     COMPUTE HEAT LOSS RATE THROUGH UNENHANCED END(S)
2964     Q1(0)=(Thetab(0)*Tanh)*((Hbar*P*Kcu*A)*.5)
2968     Qo=Q1(0)+Qc
2972     Z=Z+1
2976     IF Z=1 THEN
2980         Lu=Lu

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2984         GOTO 2912
2988     END IF
2992     Z=0
2996     Q1pct=Qq/Q(0)
3000     Qq=0
3004     As=PI*D2*L
3008     FOR I1=0 TO 4
3012         Q1(I1)=Q1pct*Q(I1)
3016         Qdp(I1)=(Q(I1)-Q1(I1))/As
3020         Htube(I1)=Qdp(I1)/Thetab(I1)
3024     NEXT I1
3028     PRINTER IS 701
3032
3036
3040     IF Im=0 THEN
3044         OUTPUT 709:"TD"
3048         ENTER 709:Told$
3052     END IF
3056
3060
3064     OUTPUT DATA TO PRINTER
3068     PRINTER IS 701
3072     PRINT
3076     PRINT USING "10X,""Data Set Number = "",DDD,2X,14A":J,Told$
3080     PRINT
3084     PRINT USING "10X,"" Tv1      Tv2      Tv3      Tld1      Tld2      Tvav      T
ldav ""
3088     PRINT USING "10X,7(MDD.DD,2X)":T(0),T(1),T(2),T(3),T(4),Tvav,Tlav
3092     PRINT USING "6X,""Tube      Wall Temperatures (Deg C)      Tnave      Qdp
H      Thetab""
3096     PRINT USING "6X,""#      1      2      3      4      5      6 (Deg C) (W/m^
2) (W/m^2.K) (K)""
3100     Jj=0
3104     FOR I1=0 TO Nht-1
3108         FOR Ji=0 TO 5
3112             Tp(Ji)=T(I1*5+Jj+5)
3116             Jj=Jj+1
3120         NEXT Ji
3124         Jj=I1+1
3128         FOR Ji=0 TO 4
3132             Tn(Ji)=1+Jj
3136         NEXT Ji
3140     PRINT USING "6X,0,1X,7(MDD.DD),1X,2(MZ.3DE),1X,1(MDD.DD)":Tn(I1),T
p(0),Tp(1),Tp(2),Tp(3),Tp(4),Tp(5),Twa(I1),Qdp(I1),Htube(I1),Thetab(I1)
3144     NEXT I1
3148     OI=1
3152     IF Im=0 THEN
3156         BEEP
3160         INPUT "OK TO STORE THIS DATA SET (1=Y(default),0=N)?",OI
3164     END IF
3168     J=the counter for data sets
3172     IF OI=1 OR Im=1 THEN J=J+1
3176     IF OI=1 AND Im=0 THEN OUTPUT @File1,Emf(*),Volt(*),Amp(*)
3180     IF Im=1 OR OI=1 THEN OUTPUT @Plot,Qdp(*),Htube(*),Thetab(*)
3184     Go_on=1
3188     IF Im=0 THEN
3192         BEEP

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3196      INPUT "WILL THERE BE ANOTHER RUN (1=Y(DEFAULT),0=N)?",Go_on
3200      Nrun=N
3204      IF Go_on=0 THEN 3236
3208      IF Go_on<>0 THEN Repeat
3212      ELSE
3216      IF J<Nrun+1 THEN Repeat
3220      END IF
3224      St=1
3228      INPUT "ARE YOU SURE YOUR READY TO TERMINATE (1=Y(DEFAULT),0=NO)?",St
3232      Go_on=1
3236      IF St>0 THEN 3244
3240      IF St=0 THEN GOTO 3208
3244      IF Im=0 THEN
3248      BEEP
3252      PRINT
3256      PRINT USING "10X","NOTE: ",ZZ," data runs were stored in file "
,10A";J-1,Dfile$
3260      ASSIGN @File1 TO *
3264      OUTPUT @File2:Nrun-1
3268      ASSIGN @File1 TO Dfile$
3272      ENTER @File1:Date$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
3276      OUTPUT @File2:Date$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
3280      FOR I=1 TO Nrun-1
3284      ENTER @File1:Emf(*),Volt(*),Amp(*)
3288      OUTPUT @File2:Emf(*),Volt(*),Amp(*)
3292      NEXT I
3296      ASSIGN @File1 TO *
3300      PURGE "DUMMY"
3304      END IF
3308      BEEP
3312      PRINT
3316      PRINT USING "10X","NOTE: ",ZZ," X-Y pairs were stored in plot data f
ile ",10A";J-1,Pfile$
3320      ASSIGN @File2 TO *
3324      ASSIGN @File1 TO *
3328      BEEP
3332      SUBEND
3336
3340XXXXXXXXXX>>>XXXX>>>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3344
3348 DEF FNCu(Tcu)
3352 OFHC COPPER
3356 Tt=Tcu+273.15      1C TO K
3360 Kcu=434-.112*Tt      1250-300K USE FOR R-114 @2.2 C
3364 Kcu=433.0-.1*Tt      1200-400K USE FOR R-133 @47.5 C
3368 RETURN Kcu
3372 FNEND
3376
3380 DEF FNMU(T)
3384 CURVE FIT OF VISCOSITY
3388 Tt=T+273.15      1C TO K
3392 MU=EXP(-4.4635+(1011.47/Tt))*1.0E-3      1R-114 170-360 K
3396 MU=.000134*10^(503/(Tt-2.15))      1R113
3400 RETURN MU
3404 FNEND
3408
3412 DEF FNCp(T)

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3416! CURVE FIT OF Cp
3420 Tk=T+273.15      !C TO K
3424 Cp=.40188+1.65007E-3*Tk+1.51494E-6*Tk^2-6.67853E-10*Tk^3 !R-114 180-400 K
3428 Cp=(929+1.03*T)*.001      !R-113
3432 Cp=Cp*1000
3436 RETURN Cp
3440 FNEND
3444!
3448 DEF FNRho(T)
3452 Tk=T+273.15      !C TO K
3456 X=1-(1.8*Tk/753.95) !K TO R
3460 Ro=36.32+61.146414*X^(1/3)+16.418015*X+17.476838*X^.5+1.119828*X^2
3464 Ro=Ro/.062428      !R-114
3468 Ro=1.6207479E+3-T*(2.2186346+T*2.3578291E-3)      !R-113
3472 RETURN Ro
3476 FNEND
3480!
3484 DEF FNPrr(T)      !GOOD FOR R-114/R-113
3488 Pr=FNCp(T)*FNMu(T)/FNK(T)
3492 RETURN Pr
3496 FNEND
3500!
3504 DEF FNK(T)
3508! T<360 K WITH T IN C
3512 K=.071-.000261*T
3516 RETURN K
3520 FNEND
3524!
3528 DEF FNTanh(Fe)
3532 P=EXP(Fe)
3536 Q=EXP(-Fe)
3540 Tanh=(P-Q)/(P+Q)
3544 RETURN Tanh
3548 FNEND
3552!
3556 DEF FNTvsv(V)
3560 COM /Cc/ C(?)
3564 T=C(0)
3568 FOR I=1 TO 7
3572 T=T+C(I)*V^I
3576 NEXT I
3580 RETURN T
3584 FNEND
3588!
3592 DEF FNBeta(T)
3596 Rop=FNRho(T+.1)
3600 Rom=FNRho(T-.1)
3604 Beta=-2/(Rop+Rom)*(Rop-Rom)/.2
3608 RETURN Beta
3612 FNEND
3616 DEF FNPoly(X)
3620 COM /Cply/ A(10,10),C(10),B(4),Nop,Iprnt,Opo,Ilog
3624 X1=X
3628 Poly=B(0)
3632 FOR I=1 TO Nop
3636 IF Ilog=1 THEN X1=LOG(X)
3640 Poly=Poly+B(I)*X1^I

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3644 NEXT I
3648 IF Ilog=1 THEN Poly=EXP(Poly)
3652 RETURN Poly
3656 FNEND
3660!
3664!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3668!
3672 SUB Poly(Dfile$(*),Np,Itn)
3676 DIM R(10),S(10),Sy(12),Sx(12),Xx(100),Yy(100),Xy(14)
3680 COM /CpLy/ A(10,10),C(10),B(4),N,Iprnt,Opo,Ilog
3684 COM /Xxyy/ Xp(5),Yp(5)
3688 FOR I=0 TO 4
3692 B(I)=0
3696 NEXT I
3700 Im=1
3704 BEEP
3708 INPUT "ENTER DATA FILE NAME",Dfile$(0)
3712 BEEP
3716 INPUT "ENTER NUMBER OF X-Y PAIRS",Np
3720 BEEP
3724 INPUT "LIKE TO EXCLUDE DATA PAIRS (1=Y,0=N(DEFAULT))?",Ied
3728 IF Ied=1 THEN
3732 BEEP
3736 INPUT "ENTER NUMBER OF PAIRS TO BE EXCLUDED",Ipe
3740 END IF
3744 ASSIGN @File TO Dfile$(0)
3748 N=2
3752 BEEP
3756 INPUT "ENTER THE ORDER OF POLYNOMIAL (DEFAULT=2)",N
3760 FOR I=0 TO N
3764 Sy(I)=0
3768 Sx(I)=0
3772 NEXT I
3776 IF Ied=1 AND Im=1 THEN
3780 FOR I=1 TO Ipe
3784 ENTER @File:Xy(I*)
3788 NEXT I
3792 END IF
3796 FOR I=1 TO Np-Ipe
3800 ENTER @File:Xy(I*)
3804 IF Opo=0 THEN
3808 Y=Xy(Itn-1)
3812 X=Xy(9+Itn)
3816 END IF
3820 IF Opo=1 THEN
3824 Y=Xy(4+Itn)
3828 X=Xy(9+Itn)
3832 END IF
3836 IF Opo=2 THEN
3840 Y=Xy(4+Itn)
3844 X=Xy(Itn-1)
3848 END IF
3852 IF Ilog=1 THEN
3856 X=LOG(X)
3860 Y=LOG(Y)
3864 END IF
3868 Xx(I)=X
3872 Yy(I)=Y

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```

3876      R(0)=Y
3880      Sy(0)=Sy(0)+Y
3884      S(1)=X
3888      Sx(1)=Sx(1)+X
3892      FOR J=1 TO N
3896          R(J)=R(J-1)*X
3900          Sy(J)=Sy(J)+R(J)
3904      NEXT J
3908      FOR J=2 TO N*2
3912          S(J)=S(J-1)*X
3916          Sx(J)=Sx(J)+S(J)
3920      NEXT J
3924      NEXT I
3928      Sx(0)=Np
3932      FOR I=0 TO N
3936          C(I)=Sy(I)
3940          FOR J=0 TO N
3944              A(I,J)=Sx(I+J)
3948          NEXT J
3952      NEXT I
3956      FOR I=0 TO N-1
3960          CALL Divide(I)
3964          CALL Subtract(I+1)
3968      NEXT I
3972      B(N)=C(N)/A(N,N)
3976      FOR I=0 TO N-1
3980          B(N-1-I)=C(N-1-I)
3984          FOR J=0 TO I
3988              B(N-1-I)=B(N-1-I)-A(N-1-I,N-J)*B(N-J)
3992          NEXT J
3996          B(N-1-I)=B(N-1-I)/A(N-1-I,N-1-I)
4000      NEXT I
4004      IF Iprnt=0 THEN
4008          PRINT USING "12X,""EXPONENT    COEFFICIENT""
4012          FOR I=0 TO N
4016              PRINT USING "15X,0D,5X,MD.7DE";I,B(I)
4020          NEXT I
4024          PRINT " "
4028          PRINT USING "12X,""DATA POINT    X            Y            Y(CALCULATED) DI
SCREPANCY""
4032          FOR I=1 TO Np
4036              Yc=B(0)
4040              FOR J=1 TO N
4044                  Yc=Yc+B(J)*Xx(I)^J
4048              NEXT J
4052              D=Yy(I)-Yc
4056              PRINT USING "15X,3D,4X,4(MD.5DE,1X)";I,Xx(I),Yy(I),Yc,D
4060          NEXT I
4064      END IF
4068      ASSIGN @File TO *
4072      SUBEND
4076
4080      SUB Divide(M)
4084      COM /Cply/ A(10,10),C(10),B(4),N,Iprnt,0po,Ilog
4088      FOR I=M TO N
4092          Ao=A(I,M)

```

```

4096     FOR J=M TO N
4100     A(I,J)=A(I,J)/Ao
4104     NEXT J
4108     C(I)=C(I)/Ao
4112 NEXT I
4116 SUBEND
4120
4124 SUB Subtract(K)
4128 COM /Cply/ A(10,10),C(10),B(4),N,Iprnt,0po,1log
4132 FOR I=K TO N
4136     FOR J=K-1 TO N
4140     A(I,J)=A(K-1,J)-A(I,J)
4144     NEXT J
4148     C(I)=C(K-1)-C(I)
4152 NEXT I
4156 SUBEND
4160
4164 SUB Plin
4168 COM /Cply/ A(10,10),C(10),B(4),N,Iprnt,0po,1log
4172 COM /Xxyy/ Xx(5),Yy(5)
4176 PRINTER IS 705
4180 BEEP
4184 INPUT "SELECT (0=n/h0% same tube,1=h(HF)/h(sm)",Int
4188 BEEP
4192 INPUT "WHICH Tsat (1=6.7,0=-2.2)",Isat
4196 Xmin=0
4200 Xmax=10
4204 Xstep=2
4208 IF Int=0 THEN
4212     Ymin=0
4216     Yma=1.4
4220     Ystep=.2
4224 ELSE
4228     Ymin=0
4232     Yma=15
4236     Ystep=5
4240 END IF
4244 BEEP
4248 PRINT "IN:SPI.IP 2300,2200,6300,6800:"
4252 PRINT "SC 0,100,0,100.TL 2,0."
4256 Sfx=100/(Xmax-Xmin)
4260 Sfy=100/(Yma-Ymin)
4264 PRINT "PU 0,0 PD"
4268 FOR Xa=Xmin TO Xmax STEP Xstep
4272     x=(Xa-Xmin)*Sfx
4276     PRINT "PA ,X",0, XT."
4280 NEXT Xa
4284 PRINT "PA 100,0.PU."
4288 PRINT "PU PA 0,0 PD"
4292 FOR Ya=Ymin TO Yma STEP Ystep
4296     Y=(Ya-Ymin)*Sfy
4300     PRINT "PA 0,".Y,"YT"
4304 NEXT Ya
4308 PRINT "PA 0,100.TL 0 2"
4312 FOR Xa=Xmin TO Xmax STEP Xstep
4316     x=(Xa-Xmin)*Sfx
4320     PRINT "PA",x",100. XT"

```

```

4324 NEXT Xa
4328 PRINT "PA 100,100 PU PA 100,0 PD"
4332 FOR Ya=Ymin TO Ymax STEP Ystep
4336   Y=(Ya-Ymin)*Sfy
4340   PRINT "PD PA 100,"Y,"YT"
4344 NEXT Ya
4348 PRINT "PA 100,100 PU"
4352 PRINT "PA 0,-2 SR 1.5,2"
4356 FOR Xa=Xmin TO Xmax STEP Xstep
4360   X=(Xa-Xmin)*Sfx
4364   PRINT "PA":X,"0:"
4368   PRINT "CP -2,-1;LB":Xa;"
4372 NEXT Xa
4376 PRINT "PU PA 0,0"
4380 FOR Ya=Ymin TO Ymax STEP Ystep
4384   IF ABS(Ya)<1.E-5 THEN Ya=0
4388   Y=(Ya-Ymin)*Sfy
4392   PRINT "PA 0,"Y,""
4396   PRINT "CP -4,-.25;LB":Ya;"
4400 NEXT Ya
4404 Xlabel$="0:1 Percent"
4408 IF Int=0 THEN
4412   Ylabel$="h/h0%"
4416   ELSE
4420   Ylabel$="h/hsmooth"
4424 END IF
4428 PRINT "SR 1.5,2;PU PA 50,-10 CP";-LEN(Xlabel$)/2;"0;LB":Xlabel$;"
4432 PRINT "PA -11,50 CP 0,";-LEN(Ylabel$)/2*5/6;"DI 0,1;LB":Ylabel$;"
4436 PRINT "CP 0,0"
4440 Ipn=0
4444 BEEP
4448 INPUT "WANT TO PLOT DATA FROM A FILE (1=Y,0=N)?",Op
4452 Icn=0
4456 IF Op=1 THEN
4460 BEEP
4464 INPUT "ENTER THE NAME OF THE DATA FILE",D_file$
4468 BEEP
4472 INPUT "SELECT (0=LINEAR, 1=LOG(X,Y)),Ilog
4476 ASSIGN @File TO D_file$
4480 BEEP
4484 INPUT "ENTER THE BEGINNING RUN NUMBER",Md
4488 BEEP
4492 INPUT "ENTER THE NUMBER OF X-Y PAIRS STORED",Npairs
4496 BEEP
4500 INPUT "ENTER DESIRED HEAT FLUX",G
4504 BEEP
4508 PRINTER IS 1
4512 PRINT USING "4X,""Select a symbol:"""
4516 PRINT USING "4X,""1 Star 2 Plus sign""
4520 PRINT USING "4X,""3 Circle 4 Square""
4524 PRINT USING "4X,""5 Rombus""
4528 PRINT USING "4X,""6 Right-side-up triangle""
4532 PRINT USING "4X,""7 Up-side-down triangle""
4536 INPUT Sym
4540 PRINTER IS 705
4544 PRINT "PU DI"
4548 IF Sym=1 THEN PRINT "SM"

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4552 IF Sym=2 THEN PRINT "SM+"
4556 IF Sym=3 THEN PRINT "SMo"
4560 Nn=4
4564 IF Ilog=1 THEN Nn=1
4568 IF Md>1 THEN
4572   FOR I=1 TO (Md-1)
4576     ENTER @File:XA,Ya
4580   NEXT I
4584 END IF
4588 Q1=Q
4592 IF Ilog=1 THEN Q=LOG(Q)
4596 FOR I=1 TO Npairs
4600   ENTER @File:XA,B(*)
4604   Ya=B(Q)
4608   FOR K=1 TO Nn
4612     Ya=Ya+B(K)*Q^K
4616   NEXT K
4620   IF Ilog=1 THEN Ya=EXP(Ya)
4624   IF Ilog=0 THEN Ya=Q1/Ya
4628   IF Int=0 THEN
4632     IF Xa=0 THEN
4636       Yo=Ya
4640       Ya=1
4644     ELSE
4648       Ya=Ya/Yo
4652     END IF
4656   ELSE
4660     Hsm=FNHsmooth(Q,Xa,Isat)
4664     Ya=Ya/Hsm
4668   END IF
4672   Xx(I-1)=Xa
4676   Yy(I-1)=Ya
4680   X=(Xa-Xmin)*Sfx
4684   Y=(Ya-Ymin)*Sfy
4688 IF Sym=3 THEN PRINT "SM"
4692 IF Sym=4 THEN PRINT "SR 1.4,2.4"
4696 PRINT "PA",X,Y,""
4700 IF Sym=3 THEN PRINT "SR 1.2,1.6"
4704 IF Sym=4 THEN PRINT "UC2,4,99,0,-8,-4,0,0,8,4,0,"
4708 IF Sym=5 THEN PRINT "UC3,0,99,-3,-6,-3,6,3,6,3,-6,"
4712 IF Sym=6 THEN PRINT "UC0,5.3,99,3,-8,-6,0,3,8,"
4716 IF Sym=7 THEN PRINT "UC0,-5.3,99,-3,8,6,0,-3,-8,"
4720 NEXT I
4724 BEEP
4728 ASSIGN @File TO *
4732 END IF
4736 PRINT "PU SM"
4740 BEEP
4744 INPUT "WANT TO PLOT A POLYNOMIAL (1=Y,0=N)?",Oip
4748 IF Oip=1 THEN
4752   BEEP
4756   INPUT "SELECT (0=LINEAR,1=LOG(X,Y))",Ilog
4760   Iprnt=1
4764   CALL Poly(Itr)
4768   FOR Xa=Xmin TO Xmax STEP Xstep/25
4772     Icn=Icn+1
4776     Ya=FNPoly(Xa)
4780     Y=Ya-Ymin*Sfy

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```

4784      X=(Xa-Xmin)*Sfx
4788      IF Y<0 THEN Y=0
4792      IF Y>100 THEN GOTO 4832
4796      Pu=0
4800      IF Ipn=1 THEN Idf=Icn MOD 2
4804      IF Ipn=2 THEN Idf=Icn MOD 4
4808      IF Ipn=3 THEN Idf=Icn MOD 8
4812      IF Ipn=4 THEN Idf=Icn MOD 16
4816      IF Ipn=5 THEN Idf=Icn MOD 32
4820      IF Idf=1 THEN Pu=1
4824      IF Pu=0 THEN PRINT "PA",X,Y,"PD"
4828      IF Pu=1 THEN PRINT "PA",X,Y,"PU"
4832      NEXT Xa
4836      PRINT "PU"
4840      Ipn=Ipn+1
4844      GOTO 4444
4848  END IF
4852  BEEP
4856  INPUT "WANT TO QUIT (1=Y,0=N)?",Iquit
4860  IF Iquit=1 THEN 4868
4864  GOTO 4444
4868  PRINT "PU SP0"
4872  SUBEND
4876  SUB Stats
4880  PRINTER IS 701
4884  J=0
4888  K=0
4892  BEEP
4896  INPUT "PLOT FILE TO ANALYZE?",File$
4900  ASSIGN @File TO File$
4904  BEEP
4908  INPUT "LAST RUN No?(0=QUIT)",Nn
4912  IF Nn=0 THEN 5056
4916  Nn=Nn-J
4920  Sx=0
4924  Sy=0
4928  Sz=0
4932  Sxs=0
4936  Sys=0
4940  Szs=0
4944  FOR I=1 TO Nn
4948  J=J+1
4952  ENTER @File:Q,T
4956  H=Q/T
4960  Sx=Sx+Q
4964  Sxs=Sxs+Q^2
4968  Sy=Sy+T
4972  Sys=Sys+T^2
4976  Sz=Sz+H
4980  Szs=Szs+H^2
4984  NEXT I
4988  Qave=Sx/Nn
4992  Tave=Sy/Nn
4996  Have=Sz/Nn
5000  Sdevq=SQR(ABS((Nn*Sxs-Sx^2)/(Nn*(Nn-1))))
5004  Sdevt=SQR(ABS((Nn*Sys-Sy^2)/(Nn*(Nn-1))))
5008  Sdevh=SQR(ABS((Nn*Szs-Sz^2)/(Nn*(Nn-1))))
5012  Sh=100*Sdevh/Have

```

```

5016 Sq=100*Sdevq/Qave
5020 St=100*Sdevt/Tave
5024 IF K=1 THEN 5048
5028 PRINT
5032 PRINT USING "11X,""DATA FILE:"",14A";File$
5036 PRINT
5040 PRINT USING "11X,""RUN Htube      SdevH      Qdp      SdevQ      Thetab SdevT""
"
5044 K=1
5048 PRINT USING "11X,DD,2(2X,D.3DE,1X,3D.2D),2X,DD,3D,1X,3D.2D";J,Have,Sh,Qave
,Sq,Tave,St
5052 GOTO 4904
5056 ASSIGN @File1 TO *
5060 PRINTER IS 1
5064 SUBEND
5068 SUB Coef
5072 COM /Cply/ A(10,10),C(10),B(4),N,Iprnt,Opo,Ilog
5076 BEEP
5080 INPUT "GIVE A NAME FOR CROSS-PLOT FILE",Cpf$
5084 BEEP
5088 INPUT "OUTPUT TYPE (0=q vs Dt, 1=h vs Dt, 2=h vs q)",Opo
5092 CREATE BDAT Cpf$,6
5096 ASSIGN @File TO Cpf$
5100 BEEP
5104 INPUT "SELECT (0=LINEAR,1=LOG(X,Y))",Ilog
5108 BEEP
5112 INPUT "ENTER OIL PERCENT (-1=STOP)",Bop
5116 BEEP
5120 INPUT "ENTER TUBE NUMBER (1, 2, 3, 4, OR 5)",Itn
5124 IF Bop<0 THEN 5140
5128 CALL Poly(Itn)
5132 OUTPUT @File,Bop,B(+)
5136 GOTO 5108
5140 ASSIGN @File TO *
5144 SUBEND
5148:
5152:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5156:
5160 SUB Plot
5164 COM /Cply/ A(10,10),C(10),B(4),Nop,Iprnt,Opo,Ilog
5168 DIM xy(14)
5172 INTEGER I1
5176 PRINTER IS 1
5180 BEEP
5184 Idv=1
5188 INPUT "LIKE DEFAULT VALUES FOR PLOT (1=Y(DEFAULT),0=N)?",Idv
5192 Opo=0
5196 BEEP
5200 PRINT USING "4X,""Select Option:"""
5204 PRINT USING "6X,""0 q versus delta-T(DEFAULT)""
5208 PRINT USING "6X,""1 h versus delta-T""
5212 PRINT USING "6X,""2 h versus q""
5216 INPUT Opo
5220 BEEP
5224 INPUT "SELECT UNITS (0=SI(DEFAULT),1=ENGLISH)",Iun
5228 PRINTER IS 705
5232 IF Idv >1 THEN

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5236      BEEP
5240      INPUT "ENTER NUMBER OF CYCLES FOR X-AXIS",Cx
5244      BEEP
5248      INPUT "ENTER NUMBER OF CYCLES FOR Y-AXIS",Cy
5252      BEEP
5256      INPUT "ENTER MIN X-VALUE (MULTIPLE OF 10)",Xmin
5260      BEEP
5264      INPUT "ENTER MIN Y-VALUE (MULTIPLE OF 10)",Ymin
5268      ELSE
5272          IF Opo=0 THEN
5276              Cy=2
5280              Cx=2
5284              Xmin=1
5288              Ymin=1000
5292          END IF
5296          IF Opo=1 THEN
5300              Cy=2
5304              Cx=2
5308              Xmin=1
5312              Ymin=100
5316          END IF
5320          IF Opo=2 THEN
5324              Cy=2
5328              Cx=2
5332              Xmin=1000
5336              Ymin=100
5340          END IF
5344      END IF
5348      BEEP
5352      PRINT "IN:SP1:IP 1600,1275,6600,6505:"
5356      PRINT "SC 0,100,0,100:TL 2,0:"
5360      Sfx=100/Cx
5364      Sfy=100/Cy
5368      BEEP
5372      INPUT "WANT TO BY-PASS CAGE (1=Y, 0=NO(DEFAULT))",Ibp
5376      IF Ibp=1 THEN S872
5380      PRINT "FU 0,0 PD"
5384      Nn=9
5388      FOR I=1 TO Cx+1
5392          Xat=Xmin*10^(I-1)
5396          IF I=Cx+1 THEN Nn=1
5400          FOR J=1 TO Nn
5404              IF J=1 THEN PRINT "TL 2 0"
5408              IF J=2 THEN PRINT "TL 1 0"
5412              Xa=Xat*J
5416              X=LG1(Xa/Xmin)*Sfx
5420              PRINT "PA":X,"0: XT:"
5424          NEXT J
5428      NEXT I
5432      PRINT "PA 100,0:PU,"
5436      PRINT "PU PA 0,0 PD"
5440      Nn=9
5444      FOR I=1 TO Cy+1
5448          Yat=Ymin*10^(I-1)
5452          IF I=Cy+1 THEN Nn=1
5456          FOR J=1 TO Nn
5460              IF J=1 THEN PRINT "TL 2 0"
5464              IF J=2 THEN PRINT "TL 1 0"

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S468      Ya=Yat+J
S472      Y=LGT(Ya/Ymin)*Sfy
S476      PRINT "PA 0,";Y,"YT"
S480      NEXT J
S484      NEXT I
S488      PRINT "PA 0,100 TL 0 2"
S492      Nn=9
S496      FOR I=1 TO Cx+1
S500          Xat=Xmin*10^(I-1)
S504          IF I=Cx+1 THEN Nn=1
S508          FOR J=1 TO Nn
S512              IF J=1 THEN PRINT "TL 0 2"
S516              IF J>1 THEN PRINT "TL 0 1"
S520              Xa=Xat+J
S524              X=LGT(Xa/Xmin)*Sfx
S528              PRINT "PA";X,"",100; XT"
S532          NEXT J
S536      NEXT I
S540      PRINT "PA 100,100 PU PA 100,0 PD"
S544      Nn=9
S548      FOR I=1 TO Cy+1
S552          Yat=Ymin*10^(I-1)
S556          IF I=Cy+1 THEN Nn=1
S560          FOR J=1 TO Nn
S564              IF J=1 THEN PRINT "TL 0 2"
S568              IF J>1 THEN PRINT "TL 0 1"
S572              Ya=Yat+J
S576              Y=LGT(Ya/Ymin)*Sfy
S580              PRINT "PD PA 100,";Y,"YT"
S584          NEXT J
S588      NEXT I
S592      PRINT "PA 100,100 PU"
S596      PRINT "PA 0,-2 SR 1.5,2"
S600      I1=LGT(Xmin)
S604      FOR I=1 TO Cx+1
S608          Xa=Xmin*10^(I-1)
S612          X=LGT(Xa/Xmin)*Sfx
S616          PRINT "PA";X,"",0;
S620          IF I1=0 THEN PRINT "CP -2,-2;LB10;PR -2,2;LB";I1;"
S624          IF I1<0 THEN PRINT "CP -2,-2;LB10;PR 0,2;LB";I1;"
S628          I1=I1+1
S632      NEXT I
S636      PRINT "PU PA 0,0
S640      I1=LGT(Ymin)
S644      Y10=10
S648      FOR I=1 TO Cy+1
S652          Ya=Ymin*10^(I-1)
S656          Y=LGT(Ya/Ymin)*Sfy
S660          PRINT "PA 0,";Y,""
S664          PRINT "CP -4,-.25;LB10;PR -2,2;LB";I1;"
S668          I1=I1+1
S672      NEXT I
S676      BEEP
S680      Id1=1
S684      INPUT "WANT USE DEFAULT LABELS (1=Y(DEFAULT),0=N)?",Id1
S688      IF Id1<>1 THEN
S692          BEEP
S696          INPUT "ENTER X-LABEL",Xlabel$
S698      END IF

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5700      BEEP
5704      INPUT "ENTER Y-LABEL",Ylabel$
5708      END IF
5712      IF Opo<2 THEN
5716          PRINT "SR 1,2:PU PA 40,-14;"
5720          PRINT "LB(T:PR -1.6,3 PD PR 1.2,0 PU:PR .5,-4:LBuo:PR .5,1;"
5724          PRINT "LB-T:PR .5,-1:LBsat:PR .5,1;"
5728          IF Iun=0 THEN
5732              PRINT "LB) / (K)"
5736          ELSE
5740              PRINT "LB) / (F)"
5744          END IF
5748      END IF
5752      IF Opo=2 THEN
5756          IF Iun=0 THEN
5760              PRINT "SR 1.5,2:PU PA 40,-14:LBq / (W/m:SR 1,1.5:PR 0.5,1:LB2:SR 1
                    .5,2:PR 0.5,-1:LB)"
5764          ELSE
5768              PRINT "SR 1.5,2:PU PA 34,-14:LBq / (Btu/hr:PR .5,.5:LB:PR .5,-.5:
                    "
5772              PRINT "LBft:PR .5,1:SR 1,1.5:LB2:SR 1.5,2:PR .5,-1:LB):"
5776          END IF
5780      END IF
5784      IF Opo=0 THEN
5788          IF Iun=0 THEN
5792              PRINT "SR 1.5,2:PU PA -12,40:DI 0,1:LBq / (W/m:PR -1,0.5:SR 1,1.5:L
                    B2:SR 1.5,2:PR 1,.5:LB)"
5796          ELSE
5800              PRINT "SR 1.5,2:PU PA -12,32:DI 0,1:LBq / (Btu/hr:PR -.5,.5:LB:PR
                    .5,.5:"
5804              PRINT "LBft:SR 1,1.5:PR -1,.5:LB2:PR 1,.5:SR 1.5,2:LB)"
5808          END IF
5812      END IF
5816      IF Opo=0 THEN
5820          IF Iun=0 THEN
5824              PRINT "SR 1.5,2:PU PA -12,38:DI 0,1:LBh / (W/m:PR -1,.5:SR 1,1.5:LB
                    2:SR 1.5,2:PR .5,.5:"
5828              PRINT "LB:PR .5,0:LBK)"
5832          ELSE
5836              PRINT "SR 1.5,2:PU PA -12,26:DI 0,1:LBh / (Btu/hr:PR -.5,.5:LB:PR
                    .5,.5:"
5840              PRINT "LBft:PR -1,.5:SR 1,1.5:LB2:SR 1.5,2:PR .5,.5:LB:PR .5,.5:
                    LBf)"
5844          END IF
5848      END IF
5852      IF Id1=0 THEN
5856          PRINT "SR 1.5,2:PU PA 50,-16 CP":-(LEN(Xlabel$)/2):"0:LB":Xlabel$:""
5860          PRINT "PA -14,50 CP 0,":-(LEN(Ylabel$)/2)*5/6:"DI 0,1:LB":Ylabel$:""
5864          PRINT "CP 0,0 DI"
5868      END IF
5872      Ipn=0
5876      Repeat:
5880          X11=1.E+6
5884          Xu1=-1.E+6
5888          Icn=0
5892          BEEP
5896          OI=1
5900      INPUT "WANT TO PLOT DATA FROM A FILE (1=Y(DEFAULT),0=N)?",OI

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5904 IF Ok=1 THEN
5908 BEEP
5912 INPUT "ENTER THE NAME OF THE DATA FILE",Dfile$(0)
5916 ASSIGN @File TO Dfile$(0)
5920 BEEP
5924 Npairs=20
5928 INPUT "ENTER THE NUMBER OF X-Y PAIRS STORED(DEFAULT=20)",Npairs
5932 BEEP
5936 Itn=Itn+1
5940 INPUT "ENTER TUBE NUMBER (1, 2, 3, 4, OR 5)",Itn
5944 BEEP
5948 PRINTER IS 1
5952 INPUT "WANT DEFAULT SYMBOLS? (YES=0 (DEFAULT),NO=1)",Symb
5956 Sym=Itn+2
5960 IF Symb=0 THEN
5964 GOTO 6000
5968 END IF
5972 PRINT USING "4X,""Select a symbol: ""
5976 PRINT USING "6X,""1 Star 2 Plus sign""
5980 PRINT USING "6X,""3 Circle 4 Square""
5984 PRINT USING "6X,""5 Rombus""
5988 PRINT USING "6X,""6 Right-side-up triangle""
5992 PRINT USING "6X,""7 Up-side-down triangle""
5996 INPUT Sym
6000 PRINTER IS 705
6004 PRINT "PU D1"
6008 IF Sym=1 THEN PRINT "SM+"
6012 IF Sym=2 THEN PRINT "SM+"
6016 IF Sym=3 THEN PRINT "SMo"
6020 FOR I=1 TO Npairs
6024 ENTER @File:Xy(I)
6028 IF Opo=0 THEN
6032 Ya=Xy(Itn-1)
6036 Xa=Xy(9+Itn)
6040 END IF
6044 IF Opo=1 THEN
6048 Ya=Xy(4+Itn)
6052 Xa=Xy(9+Itn)
6056 END IF
6060 IF Opo=2 THEN
6064 Ya=Xy(4+Itn)
6068 Xa=Xy(Itn-1)
6072 END IF
6076 IF Xa>X11 THEN X11=Xa
6080 IF Xa>X11 THEN X11=Xa
6084 IF Iun=1 THEN
6088 IF Opo<2 THEN Xa=Xa*1.8
6092 IF Opo=0 THEN Ya=Ya*.1761
6096 IF Opo=0 THEN Ya=Ya*.317
6100 IF Opo=2 THEN Xa=Xa*.317
6104 END IF
6108 X=L6T(Xa/Xmin)*Sf.
6112 Y=L6T(Ya/Ymin)*Sfy
6116 Kj=0
6120 CALL SymbolX,Y,Sym,Ic1,Kj
6124 GOTO 6176
6128 IF Sym=3 THEN PRINT "SM"
6132 IF Sym=4 THEN PRINT "SR 1.4,2.4"

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6136 IF Icl=0 THEN
6140 PRINT "PA",X,Y,""
6144 ELSE
6148 PRINT "PA",X,Y,"PD"
6152 END IF
6156 IF Sym>3 THEN PRINT "SR 1.2,1.6"
6160 IF Sym=4 THEN PRINT "UC2,4,99,0,-8,-4,0,0,8,4,0;"
6164 IF Sym=5 THEN PRINT "UC3,0,99,-3,-6,-3,6,3,6,3,-6;"
6168 IF Sym=6 THEN PRINT "UC0,5.3,99,3,-8,-6,0,3,8;"
6172 IF Sym=7 THEN PRINT "UC0,-5.3,99,-3,8,6,0,-3,-8;"
6176 NEXT I
6180 PRINT "PU"
6184 BEEP
6188 Ilab=1
6192 INPUT "WANT TO LABEL? (1=Y(DEFAULT),0=N)",Ilab
6196 IF Ilab=1 THEN
6200 PRINT "SP0:SP2"
6204 BEEP
6208 IF Klab=0 THEN
6212 Xlab=65
6216 Ylab=65
6220 INPUT "ENTER INITIAL X,Y LOCATIONS",Xlab,Ylab
6224 Xtt=Xlab-5
6228 Ytt=Ylab+8
6232 PRINT "SR 1,1,5"
6236 PRINT "SM:PA",Xtt,Ytt,"LB Tube % File"
6240 Ytt=Ytt-3
6244 PRINT "PA",Xtt,Ytt,"LB No Oil Name"
6248 IF Sym=1 THEN PRINT "SM+"
6252 IF Sym=2 THEN PRINT "SM+"
6256 IF Sym=3 THEN PRINT "SMo"
6260 Klab=1
6264 END IF
6268 Kj=1
6272 CALL Symb(Xlab,Ylab,Sym,Icl,Kj)
6276 PRINT "SR 1,1,5:SM"
6280 IF Sym=4 THEN PRINT "PR 2,0"
6284 PRINT "PR 2,0:LB":Itm,""
6288 BEEP
6292 INPUT "ENTER BOP(0=DEFAULT)",Bop
6296 IF Bop<10 THEN PRINT "PR 3,0:LB":Bop,""
6300 IF Bop=9 THEN PRINT "PR 1.5,0:LB":Bop,""
6304 PRINT "PR 2,0:LB":Dfile$(0):"
6308 PRINT "SP0:SP1:SR 1.5,2"
6312 Ylab=Ylab-5
6316 END IF
6320 BEEP
6324 ASSIGN @File TO *
6328 X11=X11/1.2
6332 Xu1=Xu1*1.2
6336 GOTO 8040
6340 END IF
6344 PRINT "PU SM"
6348 BEEP
6352 Go_on=1
6356 INPUT "WANT TO PLOT A POLYNOMIAL (1=Y(DEFAULT),0=N)?" ,Go_on
6360 IF Go_on=1 THEN
6364 BEEP

```

```

6368 PRINTER IS 1
6372 INPUT "WANT DEFAULT LINE TYPE? (YES=0 (DEFAULT),NO=1)",Ln
6376 Ipn=Itn
6380 IF Ln=0 THEN
6384 GOTO 6412
6388 END IF
6392 PRINT USING "4X, ""Select line type: ""
6396 PRINT USING "6X, ""0 Solid line""
6400 PRINT USING "6X, ""1 Dashed""
6404 PRINT USING "6X, ""2,,,5 Longer line - dash""
6408 INPUT Ipn
6412 PRINTER IS 705
6416 BEEP
6420 Ilog=1
6424 INPUT "SELECT (0=LIN,1=L06(DEFAULT))",Ilog
6428 Iprnt=1
6432 CALL Poly(Dfile$(*),Npairs,Itn)
6436 FOR Xx=0 TO Cx STEP Cx/200
6440 Xa=Xmin+10*Xx
6444 IF Xa<X11 OR Xa>Xul THEN GOTO 6536
6448 Icn=Icn+1
6452 Pu=0
6456 IF Ipn=1 THEN Idf=Icn MOD 2
6460 IF Ipn=2 THEN Idf=Icn MOD 4
6464 IF Ipn=3 THEN Idf=Icn MOD 8
6468 IF Ipn=4 THEN Idf=Icn MOD 16
6472 IF Ipn=5 THEN Idf=Icn MOD 28
6476 IF Idf=1 THEN Pu=1
6480 Ya=FPoly(Xa)
6484 IF Ya<Ymin THEN GOTO 6536
6488 IF Iun=1 THEN
6492 IF Opo<2 THEN Xa=Xa*1.8
6496 IF Opo>0 THEN Ya=Ya*.1761
6500 IF Opo=0 THEN Ya=Ya*.317
6504 IF Opo=2 THEN Xa=Xa*.317
6508 END IF
6512 Y=LGT(Ya/Ymin)*SfY
6516 X=LGT(Xa/Xmin)*SfX
6520 IF Y<0 THEN Y=0
6524 IF Y>100 THEN GOTO 6536
6528 IF Pu=0 THEN PRINT "PA",X,Y,"PD"
6532 IF Pu=1 THEN PRINT "PA",X,Y,"PU"
6536 NEXT X
6540 PRINT "PJ"
6544 END IF
6548 BEEP
6552 INPUT "WANT TO QUIT (1=Y,0=N(DEFAULT))",Iqt
6556 IF Iqt=1 THEN GOTO 6564
6560 GOTO 5880
6564 PRINT "PU PA 0,0 SP0"
6568 SUBEND
6572
6576 |XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6580
6584 SUB Symb(X,Y,Sym,Icl,Kj)
6588 IF Sym=3 THEN PRINT "SM"
6592 IF Sym=4 THEN PRINT "SR 1.4,2.4"
6596 Yad=0

```

```

6600 IF KJ=1 THEN Yad=.8
6604 IF Icl=0 THEN
6608 PRINT "PA",X,Y+Yad,""
6612 ELSE
6616 PRINT "PA",X,Y+Yad,"PD"
6620 END IF
6624 IF Sym>3 THEN PRINT "SR 1.2,1.6"
6628 IF Sym=4 THEN PRINT "UC2,4,99,0,-8,-4,0,0,8,4,0;"
6632 IF Sym=5 THEN PRINT "UC3,0,99,-3,-6,-3,6,3,6,3,-6;"
6636 IF Sym=6 THEN PRINT "UC0,5.3,99,3,-8,-6,0,3,8;"
6640 IF Sym=7 THEN PRINT "UC0,-5.3,99,-3,8,6,0,-3,-8;"
6644 IF KJ=1 THEN PRINT "SM:PR 0,-.8"
6648 SUBEND
6652!
6656!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6660!
6664 SUB Fixup
6668! FILE: FIXUP
6672!
6676 DIM Emf(34),Amp(11),Volt(4),Ldte(4)
6680 BEEP
6684 INPUT "OLD FILE TO FIXUP",D2file$
6688 ASSIGN @File2 TO D2file$
6692 Dfile$="TEST"
6696 CREATE BDAT Dfile$,60
6700 ASSIGN @File1 TO Dfile$
6704 ENTER @File2:Nrun,Date$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
6708 OUTPUT @File1:Nrun,Date$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
6712 FOR I=1 TO Nrun
6716 ENTER @File2:Told$,Emf(*),Volt(*),Amp(*)
6720 IF I=1 THEN 6728
6724 OUTPUT @File1:Bop,Told$,Emf(*),Volt(*),Amp(*)
6728 NEXT I
6732 ASSIGN @File2 TO *
6736 ASSIGN @File1 TO *
6740! RENAME "TEST" TO D2_file$
6744 BEEP 2000,.2
6748 BEEP 4000,.2
6752 BEEP 4000,.2
6756 SUBEND
6760!
6764!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6768!
6772 SUB Move
6776! FILE NAME: MOVE
6780!
6784 DIM A(66),B(66),C(66),D(66),E(66),F(66),G(66),H(66),J(66),K(66),L(66),M(66)
6788 DIM N(66),Emf(34),Volt(2),Amp(11),Ldte(4)
6792 BEEP
6796 INPUT "OLD FILE TO MOVE",D2_file$
6800 ASSIGN @File2 TO D2_file$
6804 ENTER @File2:Nrun,Told$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
6808 FOR I=1 TO Nrun
6812 ENTER @File2:Told$
6816 ENTER @File2:A(I),B(I),C(I),D(I),E(I),F(I),G(I),H(I),J(I),K(I),L(I),M(I),N(I)

```

```

6820 ENTER @File2:Emf(*),Volt(*),Amp(*)
6824 NEXT I
6828 ASSIGN @File2 TO *
6832 BEEP
6836 INPUT "SHIFT DISK AND HIT CONTINUE",Ok
6840 BEEP
6844 INPUT "INPUT BDAT SIZE",Size
6848 CREATE BDAT D2_file$,Size
6852 ASSIGN @File1 TO D2_file$
6856 OUTPUT @File1:Nrun,Date$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
6860 FOR I=1 TO Nrun
6864 OUTPUT @File1:Told$
6868 OUTPUT @File1:A(I),B(I),C(I),D(I),E(I),F(I),G(I),H(I),J(I),K(I),L(I),M
(I),N(I)
6872 OUTPUT @File1:Emf(*),Volt(*),Amp(*)
6876 NEXT I
6880 ASSIGN @File1 TO *
6884 RENAME "TEST" TO D2_file$
6888 BEEP 2000,.2
6892 BEEP 4000,.2
6896 BEEP 4000,.2
6900 PRINT "DATA FILE MOVED"
6904 SUBEND
6908
6912 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6916
6920 SUB Purg
6924 BEEP
6928 INPUT "ENTER FILE NAME TO BE DELETED",File$
6932 PURGE File$
6936 GOTO 6924
6940 SUBEND
6944
6948 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6952
6956 SUB ComB
6960 FILE NAME COMB
6964
6968 DIM Emf(34),Volt(2),Amp(11),Ldte(4)
6972 BEEP
6976 INPUT "OLD FILE TO FIXUP",D2_file$
6980 ASSIGN @File2 TO D2_file$
6984 D1_file$="TEST"
6988 CREATE BDAT D1_file$,30
6992 ASSIGN @File1 TO D1_file$
6996 ENTER @File2:Nrun,Date$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
7000 IF K=0 THEN OUTPUT @File1:Nrun,Date$,Ldte(*),Itt,Bop,Nht,Natp,Nrt,Corr
7004 FOR I=1 TO Nrun
7008 ENTER @File2:Bop,Told$,Emf(*),Volt(*),Amp(*)
7012 OUTPUT @File1:Bop,Told$,Emf(*),Volt(*),Amp(*)
7016 NEXT I
7020 ASSIGN @File2 TO *
7024 RENAME "TEST" TO D2_file$
7028 BEEP 4000,.2
7032 BEEP
7036 O/a=1
7040 INPUT "WANT TO ADD ANOTHER FILE (1=Y,0=N(default))?" ,O/a
7044 IF O/a=1 THEN

```

```

7048 K=1
7052 BEEP
7056 INPUT "GIVE NEW FILE NAME",Nfile$
7060 ASSIGN @File2 TO Nfile$
7064 GOTO 6996
7068 END IF
7072 ASSIGN @File2 TO *
7076 SUBEND
7080!
7084!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7088!
7092 SUB Readplot
7096 DIM Qdp(4),Htube(4),Thetab(4)
7100 PRINTER IS 701
7104 INPUT "ENTER FILE NAME",File$
7108 INPUT "ENTER THE NUMBER OF DATA PAIRS",Nrun
7112 ASSIGN @File1 TO File$
7116 FOR I=1 TO Nrun
7120   ENTER @File1:Qdp(*),Htube(*),Thetab(*)
7124   PRINT Qdp(*)
7128   PRINT
7132   PRINT Htube(*)
7136   PRINT
7140   PRINT Thetab(*)
7144   PRINT
7148   PRINT
7152 NEXT I
7156 SUBEND

```

## APPENDIX B

### SAMPLE CALCULATION

Data set number 13 of run ISMA01 (increasing heat flux, smooth tube, surface preparation A) was used for the sample calculation and program validation. The working fluid was R-113.

#### 1. Test tube dimensions

$$D_1 = 12.2 \text{ mm}$$

$$D_i = 13.2 \text{ mm}$$

$$D_o = 15.8 \text{ mm}$$

$$L = 203.2 \text{ mm}$$

$$L_u = 25.4 \text{ mm}$$

#### 2. Measured parameters

$$T_1 = 61.09 \text{ C}$$

$$T_2 = 61.69 \text{ C}$$

$$T_3 = 60.82 \text{ C}$$

$$T_4 = 60.92 \text{ C}$$

$$T_5 = 60.70 \text{ C}$$

$$T_6 = 61.20 \text{ C}$$

$$T_{1d1} = 47.51 \text{ C}$$

$$T_{1d2} = 47.37 \text{ C}$$

$$A_{as} = 2.349 \text{ V}$$

$$V_{as} = 2.2335 \text{ V}$$

### 3. Calculations

The heater power is first calculated from

$$q = V_{as}(V) \times A_{as}(V) \times 60(V/V) \times 1(A/V) \quad (B.1)$$

Note: Multiplication factors of volt  
and amp sensors are 60 and 1,  
respectively.

$$\begin{aligned} &= 2.2335(V) \times 2.349(V) \times 60(V/V) \times 1(A/V) \\ &= 314.79 \text{ W} \end{aligned}$$

The tube-wall average temperature at the thermocouple location diameter is

$$T_{wa} = 1/6 \times \sum_{n=1}^6 T_n \quad (B.2)$$

$$\begin{aligned} &= 1/6 \times (61.09 + 61.69 + 60.82 + 60.92 + 60.70 \\ &\quad + 61.20) \text{ C} \\ &= 61.07 \text{ C} \end{aligned}$$

Assuming uniform radial conduction in the tube wall, the outside surface average temperature is obtained from

$$T_w = T_{wa} - (q \times \ln(D_o/D_1)) / (2 \times \pi \times k_{Cu} \times L) \quad (B.3)$$

With  $k_{Cu}$  calculated at  $T_{wa}$ ,

$$\begin{aligned}
 T_w &= 61.07 - (314.79 \times \ln(15.8/12.2)) \\
 &\quad / (2 \times 399.6 \times 0.2032) \\
 &= 60.91 \text{ C}
 \end{aligned}$$

The liquid saturation temperature at the thermocouples' location is

$$\begin{aligned}
 T_{sat} &= (T_{ld1} + T_{ld2})/2 & (B.4) \\
 &= (47.51 + 47.37)/2 \text{ C} \\
 &= 47.44 \text{ C}
 \end{aligned}$$

For each of the heated instrumented tubes, a small correction is made to the above value to take into account the hydrostatic pressure difference between the point of measurement and the tube location. The hydrostatic pressure difference is given by

$$\Delta P = \rho \cdot g \cdot h_t \quad (B.5)$$

and for the top tube in the bank,

$$\begin{aligned}
 &= (1510.5 \times 9.81 \times 0.0127) \text{ Pa} \\
 &= 188 \text{ Pa}
 \end{aligned}$$

From standard tables, the change in saturation temperature for  $\Delta P$  of 188 Pa is 0.05 C, so that

$$\begin{aligned} T_{\text{sat}_C} &= (47.44 + 0.05) \text{ C} & (B.6) \\ &= 47.49 \text{ C} \end{aligned}$$

The wall superheat is then obtained as

$$\begin{aligned} \theta_b &= T_w - T_{\text{sat}_C} & (B.7) \\ &= (60.91 - 47.49) \text{ C} \\ &= 13.42 \text{ C} \end{aligned}$$

The test tube is 12 inches long and is heated uniformly over 8 inches only. The unheated lengths of the tube (1 inch on one end and 3 inches on the other end) have a fin effect during the heat-transfer process to the evaporating liquid. In order to account for this, the following procedure is adopted. The procedure is the same for both unheated lengths of the tube. Therefore calculations for the 1 inch end only are shown below.

Calculate the amount of heat transferred through the unheated length of the tube from

$$q_f = (h_{\text{bar}} x p x k_{\text{cu}} x A_c)^{1/2} x \theta_b x \tanh((n x L_c) \quad (B.8)$$

where

$$\begin{aligned} p &= \pi x D_o & (B.9) \\ &= 49.64 x 10^{-3} \text{ m} \end{aligned}$$

$$\begin{aligned}
 A_s &= (\pi/4) \times (D_o^2 - D_i^2) & (B.10) \\
 &= (\pi/4) \times (.0158^2 - .0132^2) \text{ m}^2 \\
 &= 59.22 \times 10^{-6} \text{ m}^2
 \end{aligned}$$

$$\begin{aligned}
 L_c &= L_u + t/2.0 & (B.11) \\
 &= (.0254 + (.0158 - .0132)/4) \text{ m} \\
 &= .0261 \text{ m} \\
 &= .0769 \text{ m}
 \end{aligned}$$

$$\begin{aligned}
 k_{cu} &= 433.0 - (0.1 \times t_{wa}) & (B.12) \\
 &= 433.0 - (0.1 \times t_{wa}) \\
 &= 399.6 \text{ W/m K}
 \end{aligned}$$

$$n = ((hbar \times p)/(k_{cu} \times A_c))^{1/2} \quad (B.13)$$

and

$hbar$  is the heat-transfer coefficient of the finned-like ends. Assuming the Churchill-Chu [Ref. 4] correlation, as modified by Pulido [Ref. 32], for  $hbar$ ,

$$hbar = \frac{k}{D_o} \left[ 0.6 + .387 \frac{\left( \frac{Gr \times D_o^3 \times \mu_b \times \tanh(n \times L_c)}{\nu \times \alpha \times L_c \times n} \right)^{1/6}}{\left[ 1 + (.559/Pr)^{9/16} \right]^{8/27}} \right]^2 \quad (B.14)$$

an iterative procedure is necessary whereby an initial value of  $190 \text{ W/m}^2\cdot\text{K}$  is assumed for  $h_{\text{bar}}$  and the iteration continued until successive values are within  $0.05 \text{ W/m}^2\cdot\text{K}$  from each other. The fluid physical properties are calculated at the vapor film mean temperature,  $T_{\text{film}}$ , given by

$$\begin{aligned} T_{\text{film}} &= (T_{\text{sat}} + T_w)/2 \\ &= (47.44 + 60.91)/2 \text{ C} \\ &= 54.18 \text{ C} \end{aligned} \tag{B.15}$$

or

$$t_{\text{film}} = 327.33 \text{ K}$$

so that

$$\begin{aligned} \mu &= 1.34 \times 10^{-5} \times 10^{(503/(t_{\text{film}}-2.15))} \\ &= 472.0 \times 10^{-6} \text{ kg/m}\cdot\text{s} \end{aligned} \tag{B.16}$$

$$\begin{aligned} c_p &= 929.0 + (1.03 \times T_{\text{film}}) \\ &= 984.8 \text{ J/kg}\cdot\text{K} \end{aligned} \tag{B.17}$$

$$\begin{aligned} \rho &= 1620.7479 - T_{\text{film}} \\ &\quad \times (2.2186346 + T_{\text{film}} \times .0023578291) \\ &= 1493.6 \text{ kg/m}^3 \end{aligned} \tag{B.18}$$

$$k = 0.071 - (.000261 \times T_{\text{film}}) \quad (\text{B.19})$$

$$= 0.05686 \text{ W/m}\cdot\text{K}$$

$$\text{Pr} = c_p \times \mu / k \quad (\text{B.20})$$

$$= 984.8 \times 472.0 \times 10^{-6} / .05686$$

$$= 8.18$$

$$= (1/\rho) \times (\Delta\rho/\Delta T) \quad (\text{B.21})$$

$$\rho_{54.28} = 1493.4$$

$$\rho_{54.08} = 1493.9$$

$$= -(1/1493.6) \times (1493.4 - 1493.9)/.2$$

$$= 1.658 \times 10^{-3} \text{ 1/K}$$

$$\nu = \mu / \rho \quad (\text{B.22})$$

$$= (472.0 \times 10^{-6} / 1493.6) \text{ m}^2/\text{s}$$

$$= 316.01 \times 10^{-9} \text{ m}^2/\text{s}$$

$$\alpha = k / (\rho \times c_p) \quad (\text{B.23})$$

$$= (.05686 / (1493.6 \times 984.8)) \text{ m}^2/\text{s}$$

$$= 38.66 \times 10^{-9} \text{ m}^2/\text{s}$$

The heat-transfer coefficient,  $h_{\text{bar}}$ , is obtained as

$$h_{\text{bar}} = 225.1 \text{ W/m}^2\cdot\text{K}$$

and thus

$$\begin{aligned}
 q_f &= (\bar{h} \times p \times k_{Cu} \times A)^{1/2} \times \theta_b \times \tanh(n \times L_c) \quad (B.24) \\
 &= (225.1 \times 49.64 \times 10^{-3} \times 399.6 \times 59.22 \times 10^{-6})^{1/2} \times 13.42 \\
 &\quad \times \tanh((225.1 \times 49.64 \times 10^{-3}) / (399.6 \times 59.22 \times 10^{-5}) \cdot 5 \times 0.0261) \\
 &= 3.54 \text{ W}
 \end{aligned}$$

The corresponding results for the 3 inch long unheated end of the tube are

$$\begin{aligned}
 \bar{h} &= 196.2 \text{ W/m}^2 \cdot \text{K} \\
 q_f &= 5.89 \text{ W}
 \end{aligned}$$

The heat transferred through the heated length of the tube is then

$$\begin{aligned}
 q_{sur} &= (314.79 - 3.54 - 5.89) \text{ W} \quad (B.25) \\
 &= 305.36 \text{ W}
 \end{aligned}$$

and the heat flux and the heat-transfer coefficient are finally obtained from

$$\begin{aligned}
 q'' &= q/A_s = q/(\pi \times D_o \times L) \quad (B.26) \\
 &= (305.36 / (\pi \times 0.0158 \times 0.2032)) \text{ W/m}^2 \\
 &= 30.28 \times 10^3 \text{ W/m}^2
 \end{aligned}$$

$$H = q / (A_s \times \epsilon_b)$$

(B.27)

$$= (305.36 / (.01009 \times 13.42)) \text{ W/m}^2 \cdot \text{K}$$

$$= 2.26 \times 10^3 \text{ W/m}^2 \cdot \text{K}$$

## APPENDIX C

### UNCERTAINTY ANALYSIS

The uncertainty associated with the experimental parameters is calculated from the equation suggested by Kline and McClintock [Ref. 33]. If

$$W = r(x_1, x_2, \dots, x_n) \quad (C.1)$$

then

$$W_r = \left[ \left( \frac{\delta r}{\delta x_1} W_1 \right)^2 + \left( \frac{\delta r}{\delta x_2} W_2 \right)^2 + \dots + \left( \frac{\delta r}{\delta x_n} W_n \right)^2 \right]^{1/2} \quad (C.2)$$

where:

$W_r$  = uncertainty of the desired dependent variable,

$x_n$  = the measured variables, and

$W_n$  = the uncertainties in the measured variables.

Uncertainty in the calculation of the wall superheat,  $\theta_b$

The wall superheat  $\theta_b$  is given by the equation

$$\theta_b = T_w - T_{sat_C} \quad (C.3)$$

Its associated uncertainty is then

$$\delta \epsilon_b = (\delta Tw^2 + \delta Tsat_c^2)^{1/2} \quad (C.4)$$

where  $\delta Tw$  and  $\delta Tsat_c$  are obtained using assumed uncertainties in the measured relevant variables.

#### Uncertainty in the calculation of the heat-transfer coefficient, H

The boiling heat-transfer coefficient is defined as

$$H = q / (As \times \epsilon_b) \quad (C.5)$$

where

$$\epsilon_b = Twa - Z - Tsat_c \quad (C.6)$$

$$Z = (q \times \ln(D_o/D_i)) / (2 \times \pi \times k_{cu} \times L) \quad (C.7)$$

The uncertainty in the heat-transfer coefficient is then obtained from the equation

$$\frac{\delta H}{H} = \left[ \left( \frac{\delta q}{q} \right)^2 + \left( \frac{\delta As}{As} \right)^2 + \left( \frac{\delta Twa}{\epsilon_b} \right)^2 + \left( \frac{\delta Z}{\epsilon_b} \right)^2 + \left( \frac{\delta Tsat_c}{\epsilon_b} \right)^2 \right]^{1/2} \quad (C.8)$$

Table C.1 shows typical uncertainty-analysis results for low, medium, and high heat-flux runs.

TABLE C.1  
UNCERTAINTY ANALYSIS RESULTS

Variable	Percent Uncertainties		
	Low Heat Flux	Medium Heat Flux	High Heat Flux
$\frac{\delta V}{V}$	0.005	0.005	0.005
$\frac{\delta I}{I}$	0.005	0.005	0.005
$\frac{\delta A_s}{A_s}$	0.0026	0.0026	0.0026
$\frac{\delta \epsilon_b}{\epsilon_b}$	0.071	0.037	0.015
$\frac{\delta q}{q}$	0.007	0.007	0.007
$\frac{\delta T_{nave}}{T_{nave}}$	0.062	0.032	0.019
$\frac{\delta Z}{Z}$	$19 \times 10^{-6}$	$54 \times 10^{-6}$	$155 \times 10^{-6}$
$\frac{\delta T_{sat_c}}{T_{sat_c}}$	0.034	0.02	0.007
$\frac{\delta q''}{q''}$	0.008	0.008	0.008
$\frac{\delta H}{H}$	0.071	0.038	0.0165

## APPENDIX D

### TABULATED RESULTS

The data listed in the following pages form an integral part of the work reported in the basic thesis. A six-digit alphanumeric was used for naming the data files. The first letter is an "I" or "D" which represents increasing or decreasing heat-flux runs, respectively. The second and third letters represent the tube type, "SM" for smooth tube and "FN" for finned tube. The fourth letter represents the surface preparation A, B, C, or D. And last, the number at the end of each file name is the run number.

# R-113 DATA SETS

Disk number = 02

File name: ISMA01

This data set taken on : 01:06:11:55:00

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.79	35.59	46.70	47.48	47.38	39.36	47.43

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	49.55	49.79	49.80	49.57	49.76	49.75	49.70	9.845E+02	4.449E+02	2.21

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.76	35.54	46.69	47.47	47.38	39.33	47.42

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	49.57	49.82	49.89	49.60	49.85	49.78	49.75	9.775E+02	4.306E+02	2.27

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.28	35.32	46.59	47.54	47.40	39.06	47.47

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	51.48	51.56	51.85	51.53	51.77	51.44	51.60	1.903E+03	4.679E+02	4.07

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.27	35.37	46.63	47.60	47.48	39.09	47.54

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	51.64	51.62	52.04	51.69	51.90	51.47	51.72	1.913E+03	4.642E+02	4.12

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.09	35.30	46.58	47.61	47.54	39.99	47.58

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	53.32	52.88	53.01	53.26	52.98	52.76	53.05	3.888E+03	7.200E+02	5.40

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.11	35.28	46.54	47.61	47.55	38.97	47.58

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	53.37	52.89	53.06	53.43	53.01	52.75	53.09	3.901E+03	7.184E+02	5.43

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	35.04	34.89	46.42	47.50	47.41	38.78	47.45	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	54.72	54.18	54.24	54.67	54.15	54.01	54.33	6.836E+03
								1.008E+03
								6.78

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	35.03	34.89	46.40	47.47	47.44	38.78	47.45	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	54.80	54.24	54.27	54.75	54.21	54.06	54.39	6.866E+03
								1.003E+03
								6.84

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	34.75	34.64	46.51	47.56	47.39	38.63	47.48	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	55.39	55.53	55.30	55.27	55.24	55.26	55.33	9.899E+03
								1.278E+03
								7.75

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	34.73	34.70	46.55	47.59	47.44	38.66	47.51	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	55.49	55.56	55.38	55.37	55.28	55.28	55.39	9.871E+03
								1.270E+03
								7.77

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	34.62	34.87	46.54	47.59	47.43	38.67	47.51	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	57.15	57.38	56.93	56.95	56.92	57.04	57.07	1.451E+04
								1.539E+03
								9.43

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	34.61	34.90	46.54	47.61	47.45	38.69	47.53	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	57.16	57.33	57.04	56.96	56.93	56.98	57.07	1.450E+04
								1.541E+03
								9.41

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	34.64	34.72	46.46	47.51	47.37	38.62	47.44	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	61.09	61.69	60.82	60.92	60.70	61.20	61.07	3.028E+04
								2.257E+03
								13.41

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	34.65	34.73	46.49	47.52	47.37	38.62	47.44

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	61.10	61.71	60.01	60.90	60.66	61.19	61.06 3.023E+04 2.255E+03 13.40

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	34.70	34.82	46.48	47.50	47.35	38.67	47.43

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	63.56	65.09	63.56	63.55	63.35	64.38	63.91 5.033E+04 3.113E+03 16.17

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	34.71	34.83	46.49	47.50	47.34	38.68	47.42

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	63.61	65.10	63.57	63.56	63.36	64.39	63.93 5.037E+04 3.109E+03 16.20

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	35.01	35.44	46.47	47.46	47.38	38.97	47.42

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	66.36	69.31	66.53	66.37	66.42	68.50	67.25 8.003E+04 4.134E+03 19.36

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	35.06	35.47	46.47	47.47	47.39	39.00	47.43

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	66.38	69.32	66.54	66.40	66.41	68.52	67.26 8.025E+04 4.145E+03 19.36

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.91	36.39	46.55	47.51	47.50	39.95	47.50

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	68.02	71.89	68.23	68.00	68.11	70.97	69.20 1.007E+05 4.769E+03 21.12

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.01	36.49	46.56	47.51	47.51	40.02	47.51

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	68.04	71.90	68.29	68.03	68.14	70.98	69.23 1.008E+05 4.768E+03 21.14

NOTE 20 X-Y pairs were stored in plot data file PISMA01

Disk number = 02  
 File name ISM02  
 This data set taken on : 01:10:14:00:00

Data Set Number = 1

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
36.49	36.80	46.55	47.41	47.33	39.95	47.37

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	49.82	49.90	50.03	49.85	49.96	49.82	49.90	9.494E+02	3.844E+02	2.47

Data Set Number = 2

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
36.45	36.82	46.59	47.40	47.34	39.95	47.37

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	49.78	49.86	49.95	49.79	49.91	49.80	49.85	9.510E+02	3.931E+02	2.42

Data Set Number = 3

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
35.85	36.38	45.96	47.48	47.29	39.40	47.39

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	53.99	54.30	54.46	53.98	54.31	54.17	54.20	2.665E+03	3.950E+02	6.75

Data Set Number = 4

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
35.83	36.39	45.93	47.45	47.14	39.38	47.30

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	53.64	54.39	54.38	53.68	54.23	54.26	54.10	2.674E+03	3.975E+02	6.73

Data Set Number = 5

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
35.75	35.73	45.37	47.64	47.19	38.95	47.42

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	58.44	59.90	59.85	58.49	59.56	59.67	59.32	4.951E+03	4.189E+02	11.82

Data Set Number = 6

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
35.44	35.95	46.43	47.37	47.36	39.27	47.36

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	54.65	54.54	54.45	54.56	54.39	54.26	54.48	6.818E+03	1.258E+03	7.01

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.20	35.55	46.40	47.35	47.32	39.05	47.34

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	55.82	56.03	55.68	55.68	55.63	55.70	55.75	1.208E+04	1.456E+03	8.30

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.18	35.58	46.45	47.38	47.35	39.07	47.36

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	55.84	56.04	55.70	55.67	55.66	55.70	55.77	1.210E+04	1.460E+03	8.29

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.12	35.43	46.43	47.39	47.35	39.99	47.37

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	59.59	59.93	59.20	59.34	59.13	59.49	59.45	2.301E+04	1.934E+03	11.90

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.10	35.46	46.47	47.44	47.38	39.01	47.41

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	59.61	59.98	59.26	59.38	59.18	59.55	59.49	2.301E+04	1.932E+03	11.91

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.07	35.45	46.64	47.57	47.53	39.05	47.55

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	62.36	63.19	61.94	62.19	61.78	62.62	62.35	3.902E+04	2.683E+03	14.54

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.00	35.44	46.62	47.56	47.52	39.05	47.54

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	62.32	63.16	61.94	62.18	61.80	62.59	62.33	3.900E+04	2.682E+03	14.53

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.10	35.46	46.62	47.46	47.44	39.03	47.45

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	64.84	66.94	64.77	64.84	64.73	65.21	65.39	6.354E+04	3.620E+03	17.55

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.10	35.46	46.58	47.48	47.45	39.05	47.46

Tube #	Wall Temp	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
#	1	2	3	4	5	6				
1	64.88	66.99	64.80	64.88	64.72	66.27	65.42	6.370E+04	3.624E+03	17.57

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.15	35.73	46.58	47.54	47.54	39.15	47.54

Tube #	Wall Temp	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
#	1	2	3	4	5	6				
1	67.33	70.78	67.49	67.37	67.43	69.92	68.39	9.172E+04	4.514E+03	20.32

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.16	35.75	46.55	47.52	47.51	39.15	47.51

Tube #	Wall Temp	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
#	1	2	3	4	5	6				
1	67.33	70.78	67.49	67.36	67.41	69.91	68.38	9.145E+04	4.497E+03	20.34

NOTE: 16 X-Y pairs were stored in plot data file PISMB02

Disk number = 02

File name ISMC03

This data set taken on 01-11-19 38 00

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.66	36.04	46.76	47.52	47.48	39.49	47.50

Tube #	Wall Temp	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
#	1	2	3	4	5	6				
1	50.03	50.11	50.16	50.07	50.09	50.05	50.09	1.043E+03	4.131E+02	2.53

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.57	36.04	46.80	47.61	47.50	39.47	47.56

Tube #	Wall Temp	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
#	1	2	3	4	5	6				
1	50.09	50.22	50.34	50.12	50.31	50.15	50.21	1.034E+03	3.993E+02	2.59

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.10	35.07	46.36	47.53	47.44	39.16	47.49

Tube #	Wall Temp	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
#	1	2	3	4	5	6				
1	52.61	52.95	53.06	52.64	52.96	52.83	52.84	2.308E+03	4.366E+02	5.29

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.05	36.00	46.37	47.46	47.40	39.14	47.43

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	52.48	52.87	52.86	52.49	52.69	52.79	52.70	2.319E+03	4.459E+02	5.20

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.12	35.83	45.82	47.62	47.35	38.92	47.49

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	56.29	57.35	57.36	56.32	57.08	57.19	56.93	4.091E+03	4.368E+02	9.37

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.05	35.80	45.84	47.59	47.26	38.90	47.43

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	56.20	57.27	57.29	56.25	57.08	57.10	56.86	4.104E+03	4.385E+02	9.36

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.12	34.74	45.17	47.88	47.07	38.34	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	59.72	62.35	61.93	59.83	61.53	62.12	61.24	6.156E+03	4.499E+02	13.68

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.09	35.67	46.56	47.50	47.43	39.44	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	55.37	55.48	55.25	55.21	55.21	55.19	55.28	1.067E+04	1.384E+03	7.71

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.98	35.63	46.58	47.51	47.42	39.40	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	55.37	55.50	55.27	55.23	55.20	55.18	55.29	1.066E+04	1.381E+03	7.71

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.28	35.37	46.50	47.45	47.42	39.05	47.44

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	56.84	57.14	56.70	56.68	56.66	56.75	56.79	1.464E+04	1.586E+03	9.23

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.25	35.38	46.49	47.45	47.41	39.04	47.43

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	56.85	57.15	56.73	56.70	56.65	56.79	56.81	1.466E+04	1.585E+03	9.25

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.56	35.26	46.51	47.44	47.40	39.11	47.42

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.91	61.27	60.31	60.67	60.27	60.79	60.70	2.949E+04	2.257E+03	13.07

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.63	35.19	46.53	47.44	47.40	39.12	47.42

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.89	61.23	60.27	60.65	60.15	60.76	60.66	2.948E+04	2.263E+03	13.03

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.09	35.76	46.58	47.48	47.49	39.48	47.49

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	63.62	64.91	63.24	63.51	63.09	64.27	63.77	4.995E+04	3.127E+03	15.97

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.27	35.81	46.59	47.49	47.49	39.56	47.49

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	63.61	64.91	63.25	63.51	63.07	64.27	63.77	4.996E+04	3.129E+03	15.96

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.71	37.76	46.56	47.50	47.48	40.68	47.49

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	66.35	69.16	66.34	66.36	66.27	68.33	67.13	7.801E+04	4.067E+03	19.18

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.85	37.91	46.54	47.50	47.48	40.77	47.49

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	66.31	69.08	66.21	66.32	66.26	68.28	67.09	7.754E+04	4.050E+03	19.15

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.13	39.13	46.53	47.45	47.46	41.60	47.45

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	67.19	70.41	67.23	67.15	67.17	69.55	69.11	8.822E+04	4.381E+03	20.14

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.34	39.17	46.57	47.50	47.51	41.69	47.50

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	67.19	70.48	67.30	67.23	67.20	69.61	68.17	8.820E+04	4.377E+03	20.15

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
40.76	40.16	46.47	47.45	47.46	42.46	47.46

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	68.19	72.15	68.34	68.21	68.24	71.19	69.39	1.029E+05	4.823E+03	21.34

Data Set Number = 21

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
40.76	40.19	46.51	47.47	47.48	42.48	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	68.20	72.15	68.32	68.22	68.24	71.20	69.39	1.028E+05	4.821E+03	21.32

NOTE 21 X-Y pairs were stored in plot data file PISMCO3

Disk number = 02

File name ISMC04

This data set taken on : 01 12 20 37:03

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.23	34.00	46.96	47.35	47.37	38.06	47.36

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
5	52.04	52.18	52.62	52.38	52.46	52.65	52.39	9.147E+02	2.082E+02	4.39

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.22	33.99	46.96	47.37	47.38	38.06	47.37

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
5	52.10	52.20	52.67	52.45	52.51	52.86	52.47	9.101E+02	2.043E+02	4.46

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	33.43	34.31	47.04	47.44	47.44	38.26	47.44	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	57.46	57.66	58.34	57.68	57.83	58.40	57.90	2.057E+03	2.096E+02	9.61

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	33.47	34.37	46.96	47.42	47.42	38.27	47.42	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	57.49	57.65	58.36	57.57	57.79	58.41	57.88	2.054E+03	2.093E+02	9.61

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	33.65	34.53	47.08	47.48	47.48	38.42	47.48	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	62.06	62.33	63.36	62.40	62.62	63.45	62.70	3.084E+03	2.116E+02	14.57

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	33.67	34.55	47.06	47.48	47.50	38.43	47.49	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	61.67	61.90	62.91	62.01	62.23	63.00	62.29	3.122E+03	2.207E+02	14.15

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	33.71	34.53	47.10	47.49	47.50	38.45	47.50	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	61.97	62.19	63.26	62.31	62.55	63.39	62.61	3.083E+03	2.132E+02	14.46

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	33.74	34.70	46.99	47.42	47.44	38.47	47.43	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	66.75	67.06	68.49	67.34	67.67	68.57	67.65	4.142E+03	2.118E+02	19.56

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	33.78	34.67	46.95	47.41	47.42	38.47	47.41	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	66.56	66.89	68.35	67.17	67.47	68.53	67.50	4.162E+03	2.142E+02	19.43

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.89	34.72	47.05	47.44	47.44	38.55	47.44

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	69.08	69.36	67.35	64.64	64.87	67.72	67.17	5.991E+03	3.143E+02	19.06

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.15	34.86	47.07	47.46	47.49	38.69	47.48

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	69.36	69.61	67.48	64.72	64.98	67.96	67.35	5.980E+03	3.113E+02	19.21

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.34	34.96	47.11	47.49	47.51	38.80	47.50

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	69.55	69.78	67.54	64.92	65.17	67.81	67.46	5.969E+03	3.094E+02	19.29

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.25	35.02	47.05	47.45	47.43	38.77	47.44

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	69.06	69.05	64.03	64.84	65.02	64.17	66.03	7.933E+03	4.430E+02	17.91

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.23	35.01	47.04	47.44	47.44	38.76	47.44

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	68.01	67.76	63.64	64.38	64.54	63.96	65.28	7.976E+03	4.620E+02	17.27

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.07	35.05	47.13	47.56	47.51	38.75	47.53

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	66.22	66.00	64.56	67.54	67.58	64.89	66.13	1.194E+04	6.672E+02	17.90

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.04	35.06	47.14	47.58	47.53	38.75	47.55

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	66.15	66.04	64.60	67.57	67.65	64.95	66.16	1.196E+04	6.679E+02	17.91

Data Set Number = 17

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	34.87	35.13	47.11	47.46	47.56	39.04	47.51

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1 2 3 4 5 6				
5	67.24 66.63 64.20 61.96 62.60 65.31	64.68	2.217E+04	1.350E+03	16.42

Data Set Number = 18

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	34.83	35.15	47.12	47.47	47.56	39.04	47.51

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1 2 3 4 5 6				
5	67.33 66.61 64.25 61.97 62.70 65.29	64.69	2.222E+04	1.352E+03	16.43

Data Set Number = 19

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	34.94	35.37	47.01	47.35	47.47	39.11	47.41

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1 2 3 4 5 6				
5	66.60 65.82 65.05 63.62 64.70 66.30	65.35	3.064E+04	1.787E+03	17.14

Data Set Number = 20

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	35.07	35.39	46.99	47.33	47.46	39.15	47.40

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1 2 3 4 5 6				
5	66.46 65.65 65.01 63.56 64.65 66.22	65.26	3.067E+04	1.796E+03	17.07

Data Set Number = 21

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	36.13	35.52	47.19	47.54	47.61	39.61	47.57

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1 2 3 4 5 6				
5	68.42 67.52 67.02 66.61 68.40 68.08	67.67	5.026E+04	2.617E+03	19.21

Data Set Number = 22

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	36.15	35.51	47.19	47.54	47.62	39.62	47.58

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1 2 3 4 5 6				
5	66.42 67.51 67.01 66.62 68.40 68.06	67.67	5.019E+04	2.614E+03	19.20

Data Set Number = 23

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	37.82	36.12	47.05	47.42	47.49	40.99	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1 2 3 4 5 6				
5	72.53 70.92 70.45 69.57 72.29 71.65	71.23	8.057E+04	3.545E+03	22.73

Data Set Number 24

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.99	38.24	47.06	47.44	47.49	41.10	47.46

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	72.51	70.92	70.44	69.55	72.27	71.64	71.22	8.064E+04	3.551E+03	22.71

Data Set Number = 25

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.52	39.44	47.04	47.43	47.46	42.00	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	74.93	72.98	72.42	71.19	74.60	73.86	73.33	1.009E+05	4.082E+03	24.73

Data Set Number = 26

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.59	39.53	47.05	47.42	47.47	42.06	47.44

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	74.89	72.93	72.36	71.15	74.54	73.82	73.28	1.008E+05	4.082E+03	24.69

NOTE: 26 X-Y pairs were stored in plot data file P1SMC04

Disk number = 02

File name: ISMA05

This data set taken on 01:13 12:36 21

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.26	39.11	46.99	47.38	47.38	41.79	47.38

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	50.10	50.17	50.41	50.30	50.36	50.43	50.30	9.713E+02	4.264E+02	2.28

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.22	39.05	47.00	47.40	47.40	41.76	47.40

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	50.15	50.22	50.46	50.34	50.42	50.49	50.35	9.711E+02	4.196E+02	2.31

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.34	39.06	47.04	47.45	47.50	41.81	47.48

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	53.52	53.58	53.14	52.55	52.66	53.26	53.12	1.873E+03	3.746E+02	5.00

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.01	39.09	47.04	47.46	47.51	41.71	47.49

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	53.47	53.53	53.13	52.52	52.63	53.24	53.09	1.877E+03	3.784E+02	4.96

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.66	39.01	46.95	47.40	47.47	41.54	47.43

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	56.26	56.25	54.93	53.77	53.94	55.18	55.05	3.847E+03	5.518E+02	6.97

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.62	38.96	46.93	47.38	47.45	41.50	47.41

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	56.13	56.18	54.89	53.72	53.88	55.16	55.00	3.838E+03	5.538E+02	6.93

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.47	38.84	46.98	47.39	47.49	41.43	47.44

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	58.86	58.82	56.69	55.14	55.35	57.10	56.99	6.580E+03	7.404E+02	8.89

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.47	38.84	46.99	47.41	47.50	41.44	47.45

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	58.80	58.78	56.68	55.08	55.30	57.08	56.95	6.595E+03	7.465E+02	8.83

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.33	38.91	47.08	47.51	47.61	41.44	47.56

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	60.24	60.18	58.33	56.60	56.87	58.86	58.51	9.760E+03	9.502E+02	10.27

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.29	38.94	47.10	47.51	47.61	41.45	47.56

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	60.04	59.99	58.28	56.63	56.91	58.81	58.44	9.847E+03	9.658E+02	10.20

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.00	38.90	46.98	47.37	47.45	41.29	47.41

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	61.16	61.00	59.29	58.18	58.55	60.07	59.71	1.428E+04	1.232E+03	11.59

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.00	38.86	46.99	47.39	47.47	41.29	47.43

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	61.08	60.93	59.25	58.19	58.56	60.04	59.67	1.425E+04	1.235E+03	11.54

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.07	38.73	47.11	47.46	47.58	41.30	47.52

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	62.62	62.58	62.14	61.97	62.97	63.26	62.59	2.992E+04	2.095E+03	14.28

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.04	38.74	47.09	47.43	47.57	41.29	47.50

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	62.58	62.52	62.06	61.87	62.88	63.19	62.52	2.989E+04	2.101E+03	14.23

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.14	38.62	47.09	47.43	47.51	41.28	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	66.64	65.94	65.38	64.86	66.68	66.69	66.03	4.973E+04	2.814E+03	17.67

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.18	38.62	47.10	47.44	47.53	41.30	47.48

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	66.62	65.92	65.32	64.79	66.62	66.63	65.99	4.969E+04	2.822E+03	17.61

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.79	38.86	47.14	47.51	47.56	41.59	47.53

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	71.44	69.95	69.31	68.29	71.08	70.66	70.12	7.940E+04	3.685E+03	21.54

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.91	38.90	47.13	47.51	47.56	41.65	47.53

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	71.39	69.93	69.27	68.26	71.05	70.63	70.09	7.941E+04	3.692E+03	21.51

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
40.39	40.15	47.04	47.43	47.47	42.53	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	74.04	72.20	71.50	70.21	73.59	72.98	72.42	9.902E+04	4.156E+03	23.83

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
40.56	40.25	47.04	47.43	47.47	42.62	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	74.01	72.16	71.46	70.17	73.57	72.97	72.39	9.912E+04	4.165E+03	23.80

NOTE 20 X-Y pairs were stored in plot data file PISMA05

Disk number = 02

File name ISMB06

Data Set Number = 1 01 13 14 26 55

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.96	39.49	46.94	47.37	47.37	41.80	47.37

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	54.33	54.47	55.12	55.01	55.06	55.16	54.66	1.409E+03	2.056E+02	6.85

Data Set Number = 2 01 13 14 27 41

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.04	39.49	46.98	47.40	47.41	41.84	47.40

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	54.31	54.47	55.14	55.05	55.11	55.19	54.88	1.415E+03	2.069E+02	6.84

Data Set Number = 3 01 13 14 33 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.70	39.46	47.05	47.50	47.49	41.76	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
5	59.35	59.49	59.81	59.51	59.67	59.93	59.63	2.969E+03	2.584E+02	11.49

Data Set Number = 4 01:13:14:33:57

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
38.79	39.41	47.06	47.50	47.49	41.75	47.49

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	59.13	59.31	59.68	59.42	59.61	59.79	59.49	2.973E+03	2.618E+02	11.36

Data Set Number = 5 01:13:14:38:55

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
38.47	39.33	47.09	47.56	47.51	41.63	47.54

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	61.17	61.14	60.82	62.30	62.37	60.99	61.47	5.488E+03	4.135E+02	13.27

Data Set Number = 6 01:13:14:39:29

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
38.43	39.31	47.00	47.57	47.51	41.61	47.54

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	61.09	61.10	60.65	62.08	62.10	60.82	61.31	5.501E+03	4.196E+02	13.11

Data Set Number = 7 01:13:14:49:07

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.95	38.96	46.97	47.40	47.38	41.29	47.39

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	62.06	61.87	60.70	60.96	61.35	61.09	61.35	6.755E+03	6.588E+02	13.29

Data Set Number = 8 01:13:14:49:44

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.94	38.93	47.00	47.42	47.46	41.29	47.44

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	62.03	61.80	60.29	58.53	58.96	60.61	60.37	6.829E+03	7.204E+02	12.26

Data Set Number = 9 01:13:14:56:51

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.75	38.70	47.03	47.46	47.48	41.16	47.47

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	62.56	62.33	60.50	58.06	58.41	60.98	60.47	1.273E+04	1.035E+03	12.31

Data Set Number = 10 01:13:14:57:30

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.74	38.68	47.05	47.46	47.51	41.16	47.48

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	62.57	62.34	60.50	58.06	58.41	60.99	60.48	1.278E+04	1.038E+03	12.30

Data Set Number = 11 01:13:15 07:17

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	37.37	38.58	47.01	47.29	47.44	40.96	47.41

Tube #	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	63.44	63.06	60.94	59.86	60.33	61.96	61.60	1.893E+04	1.406E+03	13.46

Data Set Number = 12 01:13:15 07:52

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	37.41	38.47	47.03	47.41	47.47	40.97	47.44

Tube #	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	63.43	63.04	60.78	59.91	60.36	61.86	61.56	1.884E+04	1.406E+03	13.40

Data Set Number = 13 01:13:15 15:27

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	37.64	38.36	47.15	47.53	47.58	41.05	47.55

Tube #	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	63.81	63.68	63.15	62.80	64.07	64.61	63.69	3.517E+04	2.295E+03	15.32

Data Set Number = 14 01:13 15:16 07

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	37.69	38.35	47.18	47.54	47.58	41.07	47.56

Tube #	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	63.76	63.62	63.12	62.76	64.04	64.59	63.65	3.514E+04	2.300E+03	15.28

Data Set Number = 15 01 13:15 27:32

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	38.34	38.56	47.02	47.40	47.44	41.31	47.42

Tube #	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	67.35	66.43	65.86	65.17	67.28	67.19	66.55	5.749E+04	3.158E+03	18.21

Data Set Number = 16 01 13:15 28:17

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	38.40	38.62	47.02	47.38	47.44	41.37	47.41

Tube #	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	67.33	66.41	65.85	65.15	67.28	67.17	66.53	5.747E+04	3.158E+03	18.20

Data Set Number = 17 01 13 15:29 06

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	38.53	38.64	47.00	47.36	47.42	41.39	47.39

Tube #	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	67.31	66.40	65.83	65.11	67.25	67.14	66.51	5.748E+04	3.160E+03	18.19

Data Set Number = 10 01:13:15:33:35

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.30	39.12	47.04	47.42	47.48	41.82	47.45

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
5	72.58	70.94	70.24	69.10	72.19	71.66	71.12	8.958E+04	3.967E+03	22.58

Data Set Number = 19 01:13:15:34:11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.44	39.22	47.04	47.42	47.47	41.90	47.45

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
5	72.58	70.91	70.22	69.09	72.16	71.65	71.10	8.943E+04	3.962E+03	22.57

Data Set Number = 20 01:13:15:34:50

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.54	39.29	47.04	47.42	47.46	41.96	47.44

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
5	72.52	70.87	70.16	69.03	72.11	71.59	71.05	8.942E+04	3.971E+03	22.52

NOTE: 20 data runs were stored in file ISMB06

NOTE: 20 X-Y pairs were stored in plot data file P15MB06

Disk number = 02

File name DSM007

This data set taken on : 01-19 13:25 00

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.38	36.38	46.47	47.49	47.50	39.74	47.49

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	68.11	71.93	68.28	68.21	68.15	70.99	69.28	9.883E+04	4.658E+03	21.22

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.54	36.47	46.48	47.49	47.50	39.83	47.49

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	68.10	71.91	68.31	68.18	68.13	70.99	69.27	9.861E+04	4.650E+03	21.21

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.14	37.17	46.60	47.56	47.56	40.30	47.56

Tube #	1	2	3	4	5	6	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	67.07	70.36	67.14	67.16	66.98	69.46	68.03	8.722E+04	4.371E+03	19.96

Data Set Number = 4

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	37.18	37.22	46.54	47.56	47.54	40.31	47.55	

Tube	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	67.04	70.33	67.10	67.12	66.93	69.42	67.99	8.731E+04	4.380E+03	19.93

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	37.19	37.67	46.63	47.55	47.51	40.50	47.53	

Tube	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	63.57	65.52	63.53	63.63	63.22	64.81	64.05	5.782E+04	3.578E+03	16.16

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	37.12	37.68	46.64	47.56	47.52	40.48	47.54	

Tube	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	63.54	65.52	63.50	63.61	63.15	64.81	64.02	5.769E+04	3.577E+03	16.13

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	37.00	37.71	46.68	47.55	47.49	40.46	47.52	

Tube	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.27	61.17	60.15	60.46	59.71	60.58	60.36	3.544E+04	2.813E+03	12.60

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	36.70	37.57	46.67	47.50	47.45	40.34	47.48	

Tube	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.18	61.07	60.04	60.16	59.61	60.49	60.26	3.515E+04	2.802E+03	12.55

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	36.60	37.52	46.71	47.56	47.46	40.27	47.51	

Tube	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	56.65	57.13	56.73	56.73	56.42	56.67	56.75	1.841E+04	2.025E+03	9.09

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	36.58	37.49	46.70	47.56	47.47	40.26	47.51	

Tube	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	56.80	57.10	56.63	56.69	56.33	56.64	56.70	1.838E+04	2.034E+03	9.03

Date Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.43	37.43	46.70	47.55	47.46	40.19	47.51

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	55.20	55.31	55.06	55.07	54.91	54.95	55.08	1.274E+04	1.709E+03	7.45

Date Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.36	37.48	46.69	47.52	47.46	40.18	47.49

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	55.14	55.28	55.00	55.01	54.83	54.94	55.03	1.267E+04	1.708E+03	7.42

Date Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.19	37.48	46.70	47.53	47.45	40.12	47.49

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	53.89	53.82	53.72	53.80	53.58	53.55	53.73	8.668E+03	1.413E+03	6.13

Date Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.18	37.49	46.73	47.55	47.45	40.13	47.50

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	53.84	53.82	53.69	53.75	53.59	53.57	53.71	8.679E+03	1.421E+03	6.11

Date Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.17	37.51	46.68	47.50	47.45	40.12	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	52.87	52.59	52.66	52.84	52.59	52.41	52.66	5.654E+03	1.108E+03	5.10

Date Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.16	37.50	46.67	47.49	47.44	40.11	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	52.86	52.62	52.73	52.81	52.65	52.44	52.69	5.661E+03	1.103E+03	5.13

Date Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.00	37.45	46.69	47.52	47.47	40.05	47.49

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	51.90	51.55	51.84	51.90	51.74	51.43	51.72	3.232E+03	7.769E+02	4.16

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	35.99	37.44	46.67	47.52	47.46	40.03	47.49

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.94	51.60	51.87	51.97	51.80	51.47	51.77	3.224E+03	7.656E+02	4.21

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.40	37.38	46.75	47.56	47.51	40.18	47.54

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	50.57	50.50	50.70	50.60	50.60	50.43	50.57	1.451E+03	4.886E+02	2.97

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.37	37.37	46.79	47.56	47.54	40.18	47.55

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	50.59	50.51	50.72	50.62	50.66	50.43	50.59	1.456E+03	4.887E+02	2.98

NOTE 20 x-y pairs were stored in plot data file PDSD027

Dist number = 03

File name DSM008

This data set taken on 01 19 15.13 24

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.79	37.92	47.06	47.46	47.51	40.93	47.49

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	74.58	72.76	72.04	70.68	74.09	73.52	72.95	9.866E+04	4.057E+03	24.32

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.91	37.96	47.09	47.46	47.51	40.99	47.49

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	74.59	72.77	72.04	70.66	74.08	73.53	72.95	9.847E+04	4.049E+03	24.32

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.30	36.44	47.08	47.49	47.53	41.28	47.51

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
5	72.27	72.75	70.07	68.89	71.02	71.38	70.86	8.276E+04	3.712E+03	22.29

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
38.27	38.46	47.10	47.49	47.54	41.28	47.51

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	72.31	70.78	70.11	68.93	71.84	71.42	70.90	8.269E+04	3.704E+03	22.32

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
37.83	38.76	47.11	47.50	47.55	41.23	47.53

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	66.93	66.15	65.58	64.83	66.73	66.71	66.16	5.245E+04	2.959E+03	17.72

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
37.82	38.78	47.13	47.49	47.58	41.24	47.53

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	67.00	66.22	65.65	64.88	66.80	66.76	66.22	5.277E+04	2.968E+03	17.78

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
37.64	38.70	47.02	47.39	47.47	41.12	47.43

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	62.53	62.38	61.83	61.41	62.57	62.78	62.25	3.174E+04	2.264E+03	14.02

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
37.61	38.64	47.01	47.36	47.48	41.09	47.43

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	62.57	62.40	61.85	61.46	62.60	62.82	62.28	3.190E+04	2.269E+03	14.06

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
37.27	38.52	47.12	47.48	47.60	40.97	47.54

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	58.52	58.74	58.32	57.97	58.50	58.89	58.51	1.624E+04	1.584E+03	10.25

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
37.22	38.52	47.09	47.47	47.59	40.94	47.53

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
5	58.54	58.76	58.32	57.99	58.50	59.01	58.52	1.625E+04	1.582E+03	10.27

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.08	38.44	47.03	47.45	47.55	40.85	47.50	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	56.59	56.80	56.45	56.12	56.45	56.93	56.56	1.061E+04	1.267E+03	8.37

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.08	38.44	47.05	47.46	47.56	40.85	47.51	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	56.67	56.87	56.50	56.19	56.51	57.00	56.62	1.076E+04	1.277E+03	8.42

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	36.84	38.34	47.06	47.49	47.58	40.75	47.53	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	55.49	55.67	55.39	55.03	55.28	55.76	55.44	7.500E+03	1.037E+03	7.23

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	36.81	38.33	47.06	47.49	47.58	40.73	47.54	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	55.51	55.71	55.41	55.03	55.28	55.78	55.45	7.520E+03	1.038E+03	7.24

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	36.75	38.30	47.06	47.49	47.56	40.70	47.53	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	54.26	54.43	54.22	53.90	54.08	54.47	54.23	4.513E+03	7.465E+02	6.05

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	36.75	38.30	47.07	47.49	47.58	40.70	47.54	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	54.18	54.34	54.17	53.87	54.05	54.42	54.17	4.519E+03	7.558E+02	5.98

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	36.71	38.23	47.01	47.44	47.49	40.65	47.46	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	53.12	52.22	53.19	52.03	52.98	53.33	53.11	2.456E+03	4.909E+02	5.00

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.74	38.23	46.98	47.43	47.48	40.65	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	53.07	53.20	53.19	52.87	53.03	53.35	53.12	2.457E+03	4.899E+02	5.02

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.22	38.05	47.18	47.59	47.62	40.81	47.60

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	51.94	52.03	52.23	51.86	51.97	52.26	52.05	1.105E+03	2.901E+02	3.81

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.24	38.07	47.15	47.58	47.59	40.82	47.59

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	51.94	52.02	52.24	51.86	51.97	52.27	52.05	1.106E+03	2.889E+02	3.83

NOTE: 20 X-Y pairs were stored in plot data file PDSMD08

Dist number = 03

File name: ISMC09

This data set taken on 01-20-08-24:00

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.10	34.53	46.79	47.50	47.47	38.47	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.65	49.80	49.81	49.66	49.75	49.74	49.73	9.491E+02	4.332E+02	2.19
2	51.55	51.54	51.44	51.59	51.01	51.11	51.37	9.509E+02	2.601E+02	3.69

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.03	34.57	46.76	47.50	47.50	38.45	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.64	49.75	49.83	49.64	49.77	49.69	49.72	9.548E+02	4.420E+02	2.16
2	51.46	51.42	51.41	51.51	51.00	51.11	51.32	9.655E+02	2.675E+02	3.61

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.39	35.19	46.37	47.38	47.36	38.65	47.37

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.52	51.91	51.91	51.57	51.88	51.84	51.77	1.936E+03	4.468E+02	4.33
2	54.95	54.89	54.96	55.16	54.28	54.49	54.79	1.949E+03	2.705E+02	7.21

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.47	35.18	46.36	47.51	47.34	38.67	47.42

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.59	52.10	52.03	51.64	51.94	52.02	51.89	1.942E+03	4.415E+02	4.40
2	54.88	54.86	55.12	55.30	54.42	54.61	54.87	1.952E+03	2.700E+02	7.23

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.74	35.08	45.78	47.58	47.27	38.53	47.42

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.60	56.64	56.65	55.69	56.34	56.46	56.23	3.670E+03	4.203E+02	8.73
2	61.14	61.11	61.92	62.16	60.73	61.08	61.36	3.681E+03	2.685E+02	13.71

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.75	35.08	45.75	47.59	47.21	38.52	47.40

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.30	56.75	56.53	55.36	56.32	56.55	56.13	3.688E+03	4.260E+02	8.66
2	61.03	60.98	61.87	62.03	60.59	61.00	61.25	3.699E+03	2.714E+02	13.63

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.84	35.26	46.45	47.39	47.44	38.52	47.42

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.87	52.61	52.72	52.85	52.66	52.47	52.70	5.175E+03	9.954E+02	5.20
2	63.47	63.45	63.16	63.70	62.74	62.97	63.25	5.183E+03	3.321E+02	15.61

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.84	35.29	46.47	47.40	47.42	38.53	47.41

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.86	52.66	52.80	52.85	52.70	52.50	52.73	5.164E+03	9.861E+02	5.24
2	63.42	63.43	63.22	63.73	62.84	63.03	63.28	5.173E+03	3.307E+02	15.64

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.90	35.40	46.52	47.47	47.48	38.60	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.66	53.40	53.40	53.48	53.34	53.24	53.40	6.846E+03	1.173E+03	5.84
2	66.24	66.25	64.45	65.58	64.43	64.59	65.26	6.846E+03	3.901E+02	17.55

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.86	35.40	46.53	47.47	47.52	38.60	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.67	53.45	53.47	53.61	53.34	53.26	53.47	6.834E+03	1.162E+03	5.88
2	65.97	65.93	64.42	65.45	64.33	64.57	65.11	6.839E+03	3.935E+02	17.38

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.82	35.49	46.48	47.43	47.46	38.60	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.11	54.08	53.97	54.01	53.90	53.89	53.99	8.398E+03	1.303E+03	6.45
2	68.41	68.42	65.06	66.73	65.26	65.44	66.55	8.397E+03	4.451E+02	18.87

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.87	35.48	46.46	47.44	47.45	38.60	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.10	54.08	53.98	54.01	53.89	53.89	53.99	8.400E+03	1.303E+03	6.45
2	68.48	68.50	65.00	66.80	65.08	65.23	66.52	8.398E+03	4.460E+02	18.83

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.18	35.40	46.53	47.47	47.45	38.70	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.66	54.96	54.45	54.57	54.35	54.72	54.62	1.013E+04	1.437E+03	7.05
2	63.10	63.29	59.05	58.75	61.53	61.05	61.13	1.012E+04	7.544E+02	13.42

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.12	35.35	46.57	47.49	47.48	38.68	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.70	54.95	54.46	54.57	54.32	54.72	54.62	1.012E+04	1.442E+03	7.02
2	63.26	63.43	58.99	58.79	61.26	60.84	61.09	1.012E+04	7.577E+02	13.35

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	34.25	35.42	46.44	47.46	47.41	38.70	47.43			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	56.28	56.82	56.09	56.14	55.91	56.53	56.29	1.448E+04	1.658E+03	8.73
2	66.00	66.20	60.67	60.22	64.07	63.34	63.42	1.446E+04	9.207E+02	15.71

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	34.25	35.22	46.44	47.44	47.39	38.63	47.41			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	56.24	56.78	56.01	56.11	55.82	56.50	56.24	1.449E+04	1.667E+03	8.70
2	65.93	66.10	60.32	59.92	63.94	63.22	63.24	1.447E+04	9.303E+02	15.55

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	35.22	35.41	46.50	47.43	47.41	39.04	47.42			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.11	60.81	59.84	59.95	59.59	60.39	60.12	2.984E+04	2.390E+03	12.49
2	63.05	63.25	63.27	62.95	63.29	63.30	63.19	2.978E+04	1.932E+03	15.41

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	35.27	35.39	46.52	47.43	47.42	39.06	47.43			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.11	60.81	59.83	59.94	59.58	60.39	60.11	2.971E+04	2.382E+03	12.47
2	63.07	63.22	63.28	62.98	63.32	63.28	63.19	2.965E+04	1.924E+03	15.41

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	35.09	36.71	46.66	47.54	47.57	39.02	47.55			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	63.23	64.86	63.10	63.27	62.76	64.27	63.58	4.975E+04	3.166E+03	15.71
2	66.21	66.36	66.41	66.09	66.24	66.21	66.22	4.964E+04	2.726E+03	18.21

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	36.11	36.71	46.67	47.63	47.57	39.83	47.55			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	63.22	64.83	63.03	63.25	62.80	64.24	63.57	4.953E+04	3.153E+03	15.71
2	66.22	66.36	66.41	66.91	66.20	66.20	66.21	4.942E+04	2.714E+03	18.21

Data Set Number = 21

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.24	37.55	46.43	47.34	47.42	40.74	47.38

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	66.63	69.47	66.64	66.67	66.39	68.69	67.41	7.930E+04	4.053E+03	19.57
2	68.32	68.50	68.51	67.87	68.35	68.03	68.26	7.919E+04	3.906E+03	20.27

Data Set Number = 22

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.29	37.58	46.45	47.35	47.44	40.77	47.39

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	66.65	69.49	66.65	66.69	66.40	68.70	67.43	7.918E+04	4.045E+03	19.57
2	68.31	68.48	68.51	67.87	68.29	68.06	68.25	7.902E+04	3.902E+03	20.25

Data Set Number = 23

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.35	37.73	46.62	47.51	47.65	40.90	47.58

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	68.58	72.27	68.67	68.58	68.46	71.40	69.66	9.868E+04	4.587E+03	21.52
2	69.74	69.92	69.92	69.25	69.69	69.35	69.65	9.853E+04	4.613E+03	21.36

Data Set Number = 24

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.43	37.78	46.61	47.51	47.64	40.94	47.57

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	68.58	72.29	68.69	68.59	68.47	71.39	69.67	9.908E+04	4.603E+03	21.53
2	69.74	69.92	69.89	69.22	69.77	69.33	69.64	9.886E+04	4.629E+03	21.36

NOTE: 24 X-Y pairs were stored in plot data file PISM09

Dist number = 03

File name ISMA10

This data set taken on : 01:20 10:45:18

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.40	37.71	46.85	47.61	47.51	40.66	47.56

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.43	49.66	49.53	49.44	49.53	49.62	49.54	1.240E+03	6.468E+02	1.92
2	50.99	50.97	51.06	51.05	50.93	51.00	51.00	1.252E+03	3.862E+02	3.24

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.45	37.70	46.85	47.55	47.52	40.67	47.54

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.48	49.61	49.50	49.51	49.50	49.57	49.53	1.240E+03	6.423E+02	1.93
2	51.02	51.02	51.01	51.02	50.83	50.92	50.97	1.251E+03	3.875E+02	3.23

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.12	37.45	46.73	47.54	47.53	40.43	47.53

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.68	50.71	50.69	50.66	50.67	50.66	50.68	2.592E+03	8.423E+02	3.08
2	52.39	52.43	52.17	52.20	51.97	51.97	52.19	2.606E+03	5.866E+02	4.44

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.06	37.43	46.75	47.55	47.52	40.41	47.53

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.65	50.73	50.71	50.64	50.68	50.67	50.68	2.570E+03	8.352E+02	3.08
2	52.41	52.43	52.27	52.30	52.08	52.12	52.27	2.584E+03	5.717E+02	4.52

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.95	37.14	46.56	47.46	47.46	40.22	47.46

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.11	52.25	52.21	52.06	52.13	52.15	52.15	4.736E+03	1.026E+03	4.62
2	53.66	53.75	53.39	53.30	53.43	53.34	53.48	4.751E+03	8.196E+02	5.80

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.93	37.14	46.58	47.47	47.46	40.21	47.46

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.11	52.27	52.22	52.07	52.15	52.13	52.16	4.729E+03	1.025E+03	4.62
2	53.67	53.79	53.34	53.32	53.31	53.25	53.45	4.742E+03	8.233E+02	5.76

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.83	37.01	46.59	47.56	47.51	40.14	47.53

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.84	54.18	54.14	53.77	54.07	53.97	53.99	7.739E+03	1.216E+03	6.37
2	55.22	55.42	54.74	54.66	54.89	54.76	54.95	7.745E+03	1.079E+03	7.18

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.80	36.99	46.59	47.54	47.51	40.13	47.53

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.86	54.14	54.13	53.78	54.03	53.92	53.98	7.747E+03	1.220E+03	6.35
2	55.19	55.39	54.73	54.65	54.84	54.69	54.91	7.754E+03	1.085E+03	7.15

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.75	36.86	46.47	47.49	47.40	40.03	47.44

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	55.19	55.69	55.68	55.12	55.48	55.39	55.42	1.092E+04	1.388E+03	7.87
2	56.27	56.52	56.01	55.85	56.29	56.10	56.17	1.092E+04	1.289E+03	8.47

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.73	36.84	46.49	47.49	47.41	40.02	47.45

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	55.20	55.72	55.67	55.12	55.49	55.44	55.44	1.092E+04	1.386E+03	7.88
2	56.16	56.40	56.01	55.83	56.31	56.09	56.13	1.092E+04	1.295E+03	8.43

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.67	36.73	46.54	47.58	47.51	39.98	47.55

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	57.26	57.95	57.57	57.17	57.24	57.60	57.47	1.639E+04	1.677E+03	9.78
2	57.94	58.21	58.29	58.03	58.55	58.32	58.22	1.637E+04	1.576E+03	10.39

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.66	36.72	46.55	47.56	47.53	39.98	47.54

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	57.25	57.91	57.53	57.17	57.22	57.56	57.44	1.642E+04	1.683E+03	9.76
2	57.91	58.20	58.26	58.02	58.52	58.30	58.20	1.640E+04	1.581E+03	10.37

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.69	36.93	46.61	47.53	47.51	40.08	47.52

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	60.79	61.56	60.45	60.61	60.18	61.10	60.78	3.201E+04	2.455E+03	13.04
2	61.62	61.90	61.99	61.61	62.01	61.73	61.81	3.196E+04	2.296E+03	13.92

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.64	36.95	46.58	47.52	47.51	40.06	47.51

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	60.73	61.52	60.45	60.57	60.13	61.06	60.74	3.207E+04	2.466E+03	13.01
2	61.57	61.83	61.97	61.56	61.99	61.71	61.77	3.200E+04	2.304E+03	13.89

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
36.90	37.26	46.60	47.49	47.54	40.25	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	63.95	65.74	63.77	63.95	63.43	65.13	64.33	5.365E+04	3.256E+03	16.48
2	64.99	65.20	65.22	64.72	65.09	64.90	65.02	5.354E+04	3.145E+03	17.03

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
36.95	37.29	46.57	47.48	47.54	40.27	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	63.88	65.69	63.76	63.90	63.40	65.08	64.29	5.389E+04	3.278E+03	16.44
2	64.95	65.17	65.20	64.68	65.10	64.87	64.99	5.375E+04	3.161E+03	17.01

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.51	37.92	46.47	47.41	47.49	40.63	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	66.36	69.08	66.36	66.40	66.13	68.32	67.11	7.563E+04	3.936E+03	19.21
2	67.48	67.64	67.62	67.04	67.44	67.19	67.40	7.545E+04	3.898E+03	19.36

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.61	37.99	46.49	47.40	47.49	40.70	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	66.35	69.09	66.36	66.38	66.08	68.31	67.10	7.565E+04	3.939E+03	19.20
2	67.43	67.60	67.61	67.01	67.43	67.17	67.38	7.548E+04	3.902E+03	19.34

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
38.34	37.97	46.54	47.42	47.55	40.95	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	68.06	71.55	68.14	68.08	67.90	70.68	69.07	9.289E+04	4.415E+03	21.04
2	68.94	69.12	69.08	68.44	68.99	68.56	68.86	9.271E+04	4.482E+03	20.69

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
38.36	37.99	46.54	47.42	47.56	40.96	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	68.07	71.57	68.18	68.08	67.93	70.70	69.09	9.298E+04	4.415E+03	21.06
2	68.94	69.09	69.08	68.42	68.99	68.56	68.85	9.278E+04	4.487E+03	20.68

NOTE 20 X-Y pairs were stored in plot data file PISMA10

Disk number = 03  
 File name: ISMB11  
 This data set taken on : 01:20:13:03:26

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.33	37.65	46.75	47.49	47.49	40.57	47.49

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	49.81	49.95	50.03	49.84	49.97	49.89	49.92	9.921E+02	4.192E+02	2.37
2	51.76	51.72	51.64	51.78	51.20	51.31	51.57	1.003E+03	2.588E+02	3.88

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.31	37.62	46.74	47.52	47.49	40.56	47.51

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	49.78	49.89	49.98	49.81	49.95	49.83	49.87	9.973E+02	4.321E+02	2.31
2	51.71	51.70	51.57	51.76	51.04	51.18	51.49	1.008E+03	2.666E+02	3.78

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.08	37.25	46.28	47.61	47.31	40.20	47.46

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	52.30	53.58	52.72	52.38	52.63	53.49	52.85	2.773E+03	5.213E+02	5.32
2	57.59	57.58	57.79	58.04	56.87	57.16	57.50	2.785E+03	2.833E+02	9.83

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.03	37.24	46.31	47.60	47.29	40.19	47.45

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	52.33	53.60	52.74	52.36	52.62	53.52	52.86	2.774E+03	5.191E+02	5.34
2	57.86	57.84	58.07	58.30	57.16	57.42	57.77	2.788E+03	2.757E+02	10.11

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.95	37.11	46.59	47.53	47.54	40.22	47.53

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	52.77	52.73	52.60	52.76	52.50	52.59	52.66	5.129E+03	1.017E+03	5.04
2	58.90	58.93	55.83	56.42	57.29	57.25	57.44	5.142E+03	5.314E+02	9.68

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.97	37.09	46.57	47.51	47.52	40.21	47.52

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	52.77	52.69	52.58	52.78	52.49	52.53	52.64	5.120E+03	1.015E+03	5.04
2	58.74	58.75	55.74	56.32	57.28	57.20	57.34	5.132E+03	5.348E+02	9.60

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.85	36.99	46.51	47.48	47.41	40.11	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.02	54.34	53.87	53.92	53.75	54.10	54.00	8.169E+03	1.266E+03	6.45
2	61.44	61.51	57.11	56.84	60.29	60.10	59.55	8.172E+03	6.891E+02	11.86

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.89	36.98	46.49	47.48	47.42	40.12	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.98	54.28	53.87	53.90	53.72	54.07	53.97	8.173E+03	1.272E+03	6.43
2	61.30	61.38	57.03	56.75	60.11	59.98	59.42	8.178E+03	6.968E+02	11.74

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.77	36.77	46.46	47.48	47.40	40.00	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.32	55.92	55.41	55.19	55.21	55.62	55.44	1.183E+04	1.500E+03	7.89
2	59.85	60.14	57.51	56.64	61.62	61.03	59.46	1.182E+04	1.005E+03	11.77

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.75	36.74	46.48	47.48	47.39	39.99	47.43

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.14	55.91	55.42	55.01	55.22	55.63	55.39	1.186E+04	1.513E+03	7.84
2	58.27	58.67	57.28	56.43	61.26	60.45	58.73	1.185E+04	1.074E+03	11.03

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.69	36.64	46.58	47.52	47.53	39.97	47.53

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	57.10	57.74	57.51	56.97	57.28	57.36	57.33	1.746E+04	1.810E+03	9.65
2	58.18	58.47	58.24	58.00	58.77	58.43	58.35	1.744E+04	1.656E+03	10.53

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.64	36.62	46.60	47.53	47.53	39.95	47.53

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	57.13	57.72	57.52	56.99	57.22	57.35	57.32	1.746E+04	1.811E+03	9.64
2	58.16	58.43	58.24	58.00	58.71	58.40	58.33	1.745E+04	1.661E+03	10.50

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.66	37.14	46.64	47.55	47.58	40.15	47.56

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	61.08 61.94 60.85 60.92 60.59 61.46	61.14	3.331E+04	2.496E+03	13.35
2	61.81 62.14 62.00 61.66 61.97 61.67	61.87	3.326E+04	2.386E+03	13.94

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.63	37.18	46.66	47.56	47.58	40.16	47.57

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	60.99 61.90 60.79 60.84 60.48 61.42	61.07	3.334E+04	2.512E+03	13.27
2	61.73 62.05 61.93 61.57 61.91 61.64	61.81	3.328E+04	2.400E+03	13.86

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.88	37.61	46.53	47.42	47.49	40.34	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	64.01 65.88 63.88 64.02 63.47 65.23	64.41	5.479E+04	3.297E+03	16.62
2	64.58 64.78 64.82 64.29 64.69 64.47	64.61	5.470E+04	3.282E+03	16.67

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	36.92	37.60	46.53	47.43	47.49	40.35	47.46

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	64.07 65.92 63.94 64.08 63.52 65.27	64.47	5.521E+04	3.312E+03	16.67
2	64.64 64.85 64.86 64.32 64.72 64.51	64.65	5.508E+04	3.297E+03	16.71

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.36	37.92	46.48	47.39	47.49	40.59	47.44

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	66.10 68.71 66.13 66.13 65.82 67.94	66.80	7.280E+04	3.846E+03	18.93
2	66.85 67.02 66.99 66.41 66.85 66.59	66.78	7.264E+04	3.871E+03	18.77

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	37.42	37.96	46.49	47.38	47.48	40.63	47.43

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	66.09 68.72 66.12 66.14 65.79 67.96	66.80	7.297E+04	3.854E+03	18.93
2	66.85 67.03 66.99 66.41 66.85 66.59	66.79	7.282E+04	3.879E+03	18.77

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.98	38.74	46.47	47.40	47.51	41.06	47.46

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	67.86	71.22	67.95	67.87	67.73	70.37	68.83	9.036E+04	4.333E+03	20.85
2	68.57	68.75	68.69	68.08	68.60	68.17	68.48	9.016E+04	4.430E+03	20.35

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.03	38.81	46.48	47.40	47.51	41.10	47.45

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	67.87	71.24	67.95	67.88	67.71	70.38	68.84	9.048E+04	4.338E+03	20.86
2	68.55	68.74	68.66	68.07	68.61	68.17	68.46	9.025E+04	4.437E+03	20.34

NOTE: 20 X-Y pairs were stored in plot data file PISM011

Disk number = 03

File name: DSM012

This data set taken on : 01:20:15-51:57

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.34	39.29	46.47	47.39	47.51	41.36	47.45

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	67.74	71.04	67.84	67.77	67.58	70.20	68.70	8.878E+04	4.283E+03	20.73
2	68.28	68.46	68.39	67.81	68.36	67.90	68.20	8.859E+04	4.410E+03	20.09

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.35	39.31	46.47	47.39	47.51	41.38	47.45

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	67.74	71.04	67.85	67.77	67.60	70.19	68.70	8.861E+04	4.274E+03	20.73
2	68.27	68.44	68.38	67.80	68.32	67.89	68.18	8.845E+04	4.407E+03	20.07

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.67	39.55	46.57	47.47	47.56	41.60	47.52

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	66.69	69.54	66.84	66.74	66.46	68.74	67.50	7.765E+04	3.977E+03	19.52
2	66.91	67.09	67.04	66.46	66.99	66.60	66.85	7.748E+04	4.137E+03	18.73

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.65	39.56	46.58	47.48	47.58	41.60	47.53

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	66.72	69.58	66.87	66.77	66.47	68.79	67.53	7.755E+04	3.968E+03	19.55
2	66.91	67.09	67.07	66.50	66.98	66.61	66.85	7.742E+04	4.133E+03	18.73

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.90	39.69	46.60	47.46	47.52	41.73	47.49			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	64.06	66.16	64.34	64.15	63.76	65.49	64.66	5.782E+04	3.440E+03	16.81
2	64.02	64.18	64.25	63.70	64.07	63.87	64.01	5.771E+04	3.602E+03	16.02

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.90	39.70	46.60	47.46	47.53	41.74	47.50			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	64.08	66.17	64.33	64.16	63.88	65.51	64.69	5.780E+04	3.433E+03	16.84
2	64.02	64.21	64.26	63.70	64.12	63.88	64.03	5.768E+04	3.598E+03	16.03

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.88	39.75	46.63	47.46	47.50	41.75	47.48			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.42	61.62	60.66	60.44	60.08	61.05	60.71	3.595E+04	2.768E+03	12.99
2	60.46	60.65	60.73	60.21	60.47	60.46	60.50	3.586E+04	2.839E+03	12.63

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.90	39.75	46.64	47.45	47.50	41.77	47.48			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.43	61.62	60.65	60.44	60.12	61.05	60.72	3.593E+04	2.764E+03	13.00
2	60.47	60.66	60.73	60.22	60.50	60.48	60.51	3.587E+04	2.836E+03	12.65

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.38	39.49	46.73	47.56	47.55	41.53	47.56			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	56.57	57.13	56.69	56.52	56.21	55.71	56.64	1.896E+04	2.124E+03	8.93
2	56.89	57.05	57.10	56.85	56.87	56.97	56.96	1.893E+04	2.079E+03	9.10

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.35	39.45	46.74	47.55	47.55	41.52	47.55			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	56.53	57.10	56.65	56.49	56.20	56.67	56.61	1.890E+04	2.123E+03	8.90
2	56.86	57.04	57.09	56.84	56.85	56.96	56.94	1.888E+04	2.076E+03	9.09

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.04	38.16	46.66	47.48	47.49	41.29	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	54.81 55.11 54.87 54.73 54.56 54.79	54.81	1.303E+04	1.808E+03	7.20
2	55.16 55.30 55.30 55.16 55.14 55.19	55.21	1.301E+04	1.745E+03	7.46

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.04	38.15	46.68	47.48	47.49	41.29	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	54.89 55.19 54.93 54.77 54.60 54.82	54.87	1.301E+04	1.793E+03	7.26
2	55.15 55.29 55.30 55.13 55.14 55.19	55.20	1.300E+04	1.745E+03	7.45

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.72	38.05	46.69	47.49	47.49	41.16	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	53.57 53.76 53.62 53.50 53.45 53.52	53.57	9.106E+03	1.523E+03	5.98
2	53.90 54.01 53.98 53.88 53.89 53.89	53.93	9.112E+03	1.471E+03	6.19

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.70	38.04	46.69	47.49	47.49	41.14	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	53.54 53.77 53.62 53.47 53.42 53.55	53.56	9.093E+03	1.524E+03	5.97
2	53.90 54.02 54.01 53.89 53.92 53.89	53.94	9.097E+03	1.467E+03	6.20

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.45	38.90	46.67	47.46	47.47	41.01	47.47

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	52.15 52.36 52.29 52.10 52.18 52.20	52.21	5.764E+03	1.236E+03	4.66
2	52.75 52.88 52.72 52.69 52.66 52.61	52.72	5.775E+03	1.150E+03	5.02

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.44	38.88	46.70	47.47	47.48	41.01	47.48

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	52.15 52.36 52.27 52.10 52.17 52.19	52.21	5.760E+03	1.240E+03	4.65
2	52.75 52.88 52.72 52.69 52.63 52.61	52.71	5.772E+03	1.153E+03	5.00

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.77	38.71	46.80	47.56	47.53	41.05	47.55			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	50.94	51.15	51.10	50.90	51.06	51.04	51.03	3.309E+03	9.696E+02	3.41
2	51.97	52.01	51.93	51.89	51.69	51.75	51.07	3.323E+03	8.084E+02	4.11

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.83	38.72	46.79	47.56	47.54	41.11	47.55			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	50.92	51.19	51.10	50.88	51.08	51.09	51.04	3.303E+03	9.657E+02	3.42
2	51.96	52.01	51.90	51.89	51.80	51.81	51.09	3.316E+03	8.030E+02	4.13

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.14	38.57	46.89	47.61	47.54	41.20	47.58			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	49.64	49.85	49.77	49.62	49.75	49.80	49.74	1.529E+03	7.278E+02	2.18
2	51.24	51.24	51.20	51.22	50.97	51.06	51.15	1.542E+03	4.571E+02	3.37

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.14	38.55	46.88	47.60	47.56	41.19	47.58			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	49.66	49.85	49.80	49.64	49.80	49.80	49.76	1.534E+03	7.254E+02	2.12
2	51.24	51.24	51.24	51.24	51.06	51.09	51.19	1.545E+03	4.546E+02	3.40

NOTE: 20 X-Y pairs were stored in plot data file PDSMD12

Disk number = 04

File name ISMC13

This data set taken on 01-23-88 40 22

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	33.50	33.12	46.54	47.34	47.29	37.72	47.32			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	49.90	50.10	50.16	49.93	50.11	50.05	50.04	1.147E+03	4.388E+02	2.66
2	52.11	52.11	52.04	52.25	51.49	51.64	51.94	1.157E+03	2.618E+02	4.42
3	52.14	52.04	52.66	52.22	52.89	52.71	52.58	1.186E+03	2.415E+02	4.91

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	33.50	33.08	46.54	47.34	47.46	37.71	47.40			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	50.08	50.12	50.27	50.09	50.17	50.06	50.13	1.145E+03	4.285E+02	2.67
2	52.18	52.15	52.08	52.24	51.53	51.66	51.97	1.156E+03	2.646E+02	4.37
3	52.16	52.09	52.71	52.26	52.94	52.75	52.62	1.183E+03	2.420E+02	4.87

Data Set Number = 3

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	33.48	33.02	46.61	47.63	47.58	37.71	47.61			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.04	51.63	51.90	52.08	51.81	51.54	51.83	2.444E+03	5.878E+02	4.16
2	56.59	56.57	56.97	57.17	56.05	56.28	56.60	2.457E+03	2.795E+02	8.79
3	57.59	58.58	57.81	57.74	58.62	57.85	58.03	2.511E+03	2.494E+02	10.07

Data Set Number = 4

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	33.48	32.99	46.59	47.58	47.62	37.68	47.60			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.09	51.56	51.81	52.15	51.69	51.48	51.79	2.448E+03	5.933E+02	4.13
2	56.66	56.64	57.04	57.26	56.18	56.39	56.70	2.461E+03	2.771E+02	8.88
3	57.81	58.74	57.97	57.97	58.78	58.02	58.21	2.511E+03	2.448E+02	10.26

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	33.44	32.62	46.40	47.46	47.42	37.49	47.44			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.44	52.45	52.58	52.41	52.45	52.26	52.43	4.582E+03	9.325E+02	4.91
2	60.98	60.94	62.43	62.43	61.56	61.83	61.69	4.590E+03	3.271E+02	14.03
3	64.52	65.42	64.05	64.74	65.45	64.04	64.70	4.681E+03	2.771E+02	16.89

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	33.44	32.56	46.37	47.44	47.37	37.46	47.41			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.41	52.43	52.56	52.40	52.44	52.25	52.42	4.603E+03	9.336E+02	4.93
2	61.08	61.03	62.53	62.55	61.70	61.96	61.81	4.612E+03	3.254E+02	14.18
3	64.15	65.09	63.87	64.38	65.14	63.93	64.43	4.703E+03	2.824E+02	16.65

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	33.48	33.12	46.46	47.41	47.37	37.69	47.38			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.77	52.59	52.49	52.78	52.40	52.44	52.58	6.002E+03	1.176E+03	5.10
2	58.97	59.03	55.69	55.87	54.77	54.70	56.51	6.013E+03	6.767E+02	8.89
3	63.40	64.45	63.95	63.66	64.54	63.93	63.99	6.121E+03	3.773E+02	16.23

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	33.48	33.15	46.46	47.42	47.41	37.70	47.41			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.89	52.60	52.51	52.86	52.44	52.43	52.62	6.001E+03	1.171E+03	5.12
2	58.08	58.14	54.91	55.18	54.52	54.43	55.87	6.008E+03	7.300E+02	8.23
3	63.71	64.28	63.94	63.55	64.39	63.92	63.90	6.119E+03	3.798E+02	16.11

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.50	33.21	46.49	47.40	47.44	37.73	47.42

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.45	53.29	53.12	53.35	53.01	53.13	53.23	7.541E+03	1.321E+03	5.71
2	57.68	57.62	54.80	54.97	54.86	54.82	55.79	7.549E+03	9.284E+02	8.13
3	65.00	65.29	64.95	65.35	65.56	64.92	65.19	7.681E+03	4.418E+02	17.39

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.51	33.25	46.49	47.40	47.45	37.75	47.43

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.49	53.26	53.12	53.44	53.02	53.05	53.23	7.544E+03	1.321E+03	5.71
2	57.39	57.45	54.75	54.87	54.85	54.74	55.67	7.546E+03	9.249E+02	8.01
3	65.51	65.43	64.90	65.79	65.73	64.90	65.38	7.682E+03	4.373E+02	17.57

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.59	33.33	46.56	47.45	47.49	37.83	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.35	54.89	54.59	54.26	54.42	54.67	54.53	1.079E+04	1.552E+03	6.95
2	55.32	55.46	55.76	55.58	56.34	56.15	55.77	1.078E+04	1.340E+03	8.05
3	67.04	65.68	63.01	67.24	66.24	62.64	65.31	1.096E+04	6.284E+02	17.44

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.62	33.37	46.55	47.47	47.49	37.84	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.44	54.89	54.67	54.33	54.53	54.67	54.59	1.078E+04	1.540E+03	7.00
2	55.35	55.47	55.80	55.62	56.39	56.18	55.80	1.077E+04	1.335E+03	8.07
3	66.85	65.54	62.69	67.07	66.07	62.47	65.11	1.095E+04	6.354E+02	17.24

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.75	33.58	46.59	47.45	47.48	37.97	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	56.45	57.10	56.75	56.36	56.49	56.80	56.66	1.606E+04	1.773E+03	9.06
2	57.29	57.44	57.76	57.61	58.29	58.17	57.76	1.603E+04	1.601E+03	10.01
3	67.91	66.44	63.50	67.98	67.36	63.04	66.01	1.627E+04	8.982E+02	18.12

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.77	33.60	46.58	47.45	47.48	37.98	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	56.52	57.10	56.75	56.40	56.45	56.79	56.67	1.600E+04	1.764E+03	9.07
2	57.36	57.44	57.72	57.57	58.30	58.14	57.74	1.597E+04	1.597E+03	10.00
3	67.90	65.43	63.26	67.96	67.34	63.02	65.98	1.622E+04	8.965E+02	18.09

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.89	34.25	46.58	47.51	47.55	38.24	47.53

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	60.84	61.82	60.67	60.65	60.39	61.36	60.96	3.133E+04	2.372E+03	13.21
2	61.45	61.74	62.00	61.44	61.92	61.89	61.74	3.126E+04	2.258E+03	13.85
3	69.42	63.93	63.92	68.51	64.32	63.60	65.62	3.171E+04	1.804E+03	17.58

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.91	34.29	46.60	47.49	47.53	38.27	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	60.79	61.75	60.62	60.60	60.32	61.30	60.90	3.135E+04	2.381E+03	13.17
2	61.42	61.69	61.97	61.39	61.83	61.88	61.70	3.129E+04	2.264E+03	13.82
3	69.42	63.91	63.90	68.47	64.29	63.60	65.59	3.173E+04	1.806E+03	17.57

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.42	35.36	46.55	47.44	47.47	39.11	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.04	65.82	63.84	63.97	63.46	65.20	64.39	5.192E+04	3.124E+03	16.62
2	64.66	64.92	64.99	64.43	64.82	64.70	64.75	5.179E+04	3.077E+03	16.83
3	66.34	66.26	66.40	66.62	66.72	66.31	66.44	5.249E+04	2.857E+03	18.38

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.45	35.42	46.52	47.44	47.47	39.13	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.01	65.82	63.84	63.92	63.49	65.15	64.37	5.055E+04	3.045E+03	16.60
2	64.62	64.87	64.95	64.29	64.84	64.67	64.72	5.044E+04	3.001E+03	16.81
3	66.32	66.23	66.40	66.62	66.71	66.28	66.43	5.114E+04	2.784E+03	18.36

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.22	35.91	46.58	47.48	47.52	39.57	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	67.05	69.92	67.05	67.03	66.75	69.14	67.83	7.969E+04	4.014E+03	19.85
2	67.67	67.92	67.92	67.40	67.87	67.48	67.71	7.948E+04	4.056E+03	19.60
3	68.74	68.42	68.54	68.81	68.88	68.57	68.66	8.052E+04	3.948E+03	20.39

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.30	35.98	46.60	47.48	47.52	39.63	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	67.05	69.91	67.03	67.01	66.70	69.12	67.80	7.946E+04	4.005E+03	19.83
2	67.68	67.92	67.91	67.37	67.86	67.49	67.71	7.931E+04	4.048E+03	19.59
3	69.73	68.41	68.55	68.80	68.89	68.53	68.65	8.036E+04	3.942E+03	20.39

NOTE: 20 X-Y pairs were stored in plot data file P1SMC13

Disk number = 04  
File name: ISMA14  
This data set taken on : 01:23:14:02:42

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	38.05	38.40	46.70	47.43	47.42	41.05	47.43	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	49.33	49.54	49.43	49.33	49.42	49.52	49.43	1.405E+03	7.236E+02	1.94
2	50.12	50.13	50.23	50.21	50.14	50.18	50.17	1.416E+03	5.577E+02	2.54
3	51.98	52.17	52.08	52.08	52.20	52.09	52.10	1.451E+03	3.354E+02	4.33

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.90	38.46	46.64	47.40	47.39	41.00	47.39	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	49.30	49.50	49.38	49.30	49.38	49.47	49.39	1.408E+03	7.289E+02	1.93
2	50.09	50.10	50.23	50.17	50.12	50.15	50.14	1.421E+03	5.587E+02	2.54
3	51.94	52.13	52.01	52.03	52.16	52.04	52.05	1.453E+03	3.374E+02	4.31

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.69	38.64	46.62	47.49	47.43	40.99	47.46	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.64	51.04	50.80	50.60	50.80	50.94	50.80	3.017E+03	9.208E+02	3.28
2	51.22	51.25	51.53	51.39	51.59	51.62	51.43	3.031E+03	8.056E+02	3.76
3	54.74	53.82	53.21	54.66	53.67	53.20	53.95	3.095E+03	5.045E+02	6.13

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.59	38.67	46.62	47.51	47.44	40.96	47.48	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.68	51.03	50.80	50.64	50.78	50.94	50.81	3.015E+03	9.230E+02	3.27
2	51.24	51.27	51.55	51.40	51.64	51.64	51.46	3.029E+03	8.041E+02	3.77
3	54.68	53.71	53.21	54.80	53.75	53.20	53.89	3.093E+03	5.107E+02	6.05

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.31	38.50	46.54	47.50	47.51	40.78	47.50	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.31	52.56	52.49	52.24	52.39	52.41	52.40	5.254E+03	1.091E+03	4.82
2	52.80	52.88	53.24	53.03	53.35	53.29	53.10	5.266E+03	8.812E+02	5.37
3	57.39	55.25	54.61	57.56	55.25	54.52	55.76	5.369E+03	6.806E+02	7.89

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.22	38.52	46.55	47.51	47.49	40.76	47.50

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.20	52.55	52.38	52.17	52.34	52.40	52.34	5.254E+03	1.104E+03	4.76
2	52.75	52.83	53.20	52.99	53.34	53.27	53.06	5.267E+03	9.867E+02	5.34
3	57.41	55.24	54.63	57.58	55.27	54.52	55.78	5.368E+03	6.791E+02	7.91

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.08	38.28	46.51	47.51	47.47	40.62	47.49

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.84	54.35	54.15	53.76	53.94	54.08	54.02	8.369E+03	1.297E+03	6.43
2	54.43	54.52	54.79	54.60	54.68	54.81	54.64	8.371E+03	1.212E+03	6.90
3	59.65	56.66	55.95	59.84	56.66	55.74	57.42	8.520E+03	8.930E+02	9.54

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.14	38.28	46.50	47.53	47.46	40.64	47.50

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.84	54.35	54.10	53.75	53.98	54.14	54.03	8.340E+03	1.297E+03	6.43
2	54.42	54.52	54.82	54.61	54.77	54.80	54.66	8.343E+03	1.206E+03	6.92
3	59.60	56.65	55.96	59.77	56.65	55.74	57.39	8.493E+03	8.930E+02	9.51

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.05	38.20	46.37	47.40	47.40	40.54	47.40

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.30	55.97	55.82	55.21	55.50	55.67	55.58	1.193E+04	1.480E+03	8.06
2	56.09	56.17	56.42	56.40	56.17	56.25	56.25	1.192E+04	1.388E+03	8.59
3	57.74	57.25	57.30	58.09	57.28	57.02	57.45	1.212E+04	1.257E+03	9.64

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.04	38.15	46.38	47.40	47.41	40.52	47.41

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.31	55.98	55.83	55.27	55.60	55.71	55.62	1.183E+04	1.462E+03	8.10
2	56.06	56.16	56.43	56.37	56.16	56.25	56.24	1.182E+04	1.381E+03	8.57
3	57.73	57.27	57.28	58.11	57.28	57.01	57.45	1.202E+04	1.248E+03	9.63

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.11	38.06	46.41	47.40	47.44	40.53	47.42

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	57.39	58.24	57.72	57.31	57.27	57.88	57.63	1.741E+04	1.730E+03	10.06
2	58.05	58.25	58.54	58.41	58.21	58.34	58.31	1.738E+04	1.641E+03	10.59
3	59.78	59.40	59.40	60.30	59.44	59.01	59.56	1.765E+04	1.509E+03	11.70

## Data Set Number = 12

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.13	38.08	46.39	47.40	47.43	40.53	47.41

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	57.33	58.18	57.70	57.24	57.28	57.80	57.59	1.737E+04	1.731E+03	10.03
2	58.14	58.22	58.59	58.47	58.26	58.36	58.34	1.735E+04	1.631E+03	10.64
3	59.74	59.42	59.39	60.28	59.44	59.00	59.55	1.762E+04	1.507E+03	11.70

## Data Set Number = 13

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.57	38.27	46.58	47.50	47.56	40.81	47.53

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	61.42	62.67	61.25	61.22	60.91	62.19	61.61	3.373E+04	2.435E+03	13.85
2	61.88	62.20	62.37	61.85	62.25	62.14	62.12	3.366E+04	2.369E+03	14.21
3	63.51	63.62	63.94	64.11	63.88	63.45	63.75	3.416E+04	2.176E+03	15.70

## Data Set Number = 14

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.57	38.28	46.60	47.50	47.57	40.81	47.54

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	61.40	62.62	61.24	61.23	60.83	62.14	61.58	3.372E+04	2.442E+03	13.81
2	61.87	62.15	62.34	61.83	62.21	62.12	62.09	3.365E+04	2.374E+03	14.18
3	63.50	63.59	63.93	64.10	63.85	63.44	63.73	3.413E+04	2.177E+03	15.68

## Data Set Number = 15

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.12	38.13	46.52	47.44	47.49	40.59	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.51	66.46	64.38	64.45	63.98	65.83	64.94	5.549E+04	3.239E+03	17.13
2	65.13	65.40	65.41	64.90	65.30	65.12	65.21	5.536E+04	3.209E+03	17.25
3	66.46	66.31	66.50	66.73	66.80	66.33	66.52	5.612E+04	3.047E+03	18.42

## Data Set Number = 16

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.11	38.11	46.54	47.44	47.51	40.58	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.51	66.46	64.38	64.46	63.97	65.81	64.93	5.552E+04	3.245E+03	17.11
2	65.14	65.41	65.42	64.90	65.31	65.13	65.22	5.539E+04	3.209E+03	17.26
3	66.46	66.33	66.51	66.73	66.80	66.36	66.53	5.615E+04	3.048E+03	18.42

## Data Set Number = 17

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.09	38.21	46.53	47.43	47.51	40.61	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	66.50	69.08	66.43	66.42	66.08	68.30	67.13	7.327E+04	3.811E+03	19.23
2	67.09	67.33	66.84	67.30	66.96	67.15	67.15	7.310E+04	3.828E+03	19.10
3	68.13	67.84	67.99	68.25	68.32	67.87	68.07	7.408E+04	3.729E+03	19.87

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	37.09	38.21	46.53	47.43	47.50	40.61	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	66.47	69.03	66.44	66.41	66.07	68.28	67.12	7.322E+04	3.811E+03	19.21
2	67.09	67.32	67.33	66.82	67.28	66.94	67.13	7.305E+04	3.828E+03	19.08
3	68.13	67.82	68.00	68.26	68.30	67.88	68.06	7.402E+04	3.726E+03	19.87

Data Set Number = 19

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	37.22	38.64	46.63	47.50	47.60	40.83	47.55

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	68.11	71.49	68.17	68.06	67.88	70.65	69.06	9.024E+04	4.301E+03	20.98
2	68.77	69.07	68.98	68.42	69.00	68.45	68.78	9.007E+04	4.381E+03	20.56
3	68.50	69.12	68.30	69.52	69.53	69.11	69.35	9.127E+04	4.351E+03	20.98

Data Set Number = 20

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	37.26	38.70	46.63	47.50	47.60	40.86	47.55

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	68.14	71.47	68.16	68.05	67.93	70.63	69.06	9.039E+04	4.308E+03	20.98
2	68.76	69.06	68.97	68.42	69.00	68.46	68.78	9.019E+04	4.387E+03	20.56
3	69.48	69.09	69.27	69.52	69.53	69.09	69.33	9.137E+04	4.360E+03	20.96

NOTE 20 X-Y pairs were stored in plot data file PISMA14

Dist number = 04

File name ISMB15

This data set taken on 01:24 14 32:43

Data Set Number = 1

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	37.06	37.37	46.52	47.56	47.53	40.32	47.54

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	51.03	51.12	51.36	51.11	51.34	51.03	51.17	1.442E+03	4.040E+02	3.57
2	53.73	53.71	53.69	53.89	53.02	53.19	53.54	1.453E+03	2.511E+02	5.79
3	53.99	54.94	54.98	54.10	54.97	55.00	54.66	1.485E+03	2.194E+02	6.77

Data Set Number = 2

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	37.07	37.38	46.56	47.49	47.52	40.34	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	51.11	51.12	51.32	51.14	51.23	51.02	51.16	1.450E+03	4.036E+02	3.59
2	53.74	53.73	53.60	53.81	52.93	53.09	53.48	1.461E+03	2.530E+02	5.77
3	53.89	54.91	54.96	54.00	54.95	54.99	54.62	1.495E+03	2.210E+02	6.77

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.39	37.68	46.28	47.47	47.27	40.12	47.37

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.56	52.98	52.22	52.61	52.15	52.93	52.57	3.154E+03	6.143E+02	5.13
2	55.56	55.53	54.87	54.88	55.49	55.57	55.32	3.167E+03	4.096E+02	7.73
3	60.04	60.66	59.35	60.20	60.70	59.38	60.06	3.230E+03	2.620E+02	12.33

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.45	37.68	46.31	47.62	47.34	40.15	47.48

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	52.64	53.13	52.43	52.64	52.31	53.08	52.71	3.146E+03	6.106E+02	5.15
2	55.56	55.53	54.90	54.95	55.56	55.63	55.35	3.159E+03	4.126E+02	7.66
3	60.02	60.59	59.26	60.19	60.65	59.33	60.01	3.223E+03	2.650E+02	12.17

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.30	37.69	46.14	47.71	47.11	40.04	47.41

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.25	55.54	52.72	53.30	52.67	55.56	53.84	5.478E+03	8.633E+02	6.35
2	56.30	56.29	55.78	54.49	58.23	58.21	56.55	5.490E+03	6.160E+02	8.91
3	59.47	55.79	58.15	59.56	55.76	58.11	57.81	5.591E+03	5.577E+02	10.02

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.20	37.72	46.11	47.68	47.09	40.04	47.39

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.26	55.35	52.66	53.35	52.61	55.38	53.77	5.455E+03	8.663E+02	6.30
2	56.22	56.27	55.86	54.49	58.26	58.21	56.55	5.470E+03	6.121E+02	8.94
3	59.41	55.72	58.03	59.54	55.69	57.97	57.73	5.575E+03	5.594E+02	9.97

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.51	37.61	46.54	47.55	47.46	40.22	47.51

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.93	54.55	53.80	53.83	53.65	54.31	54.01	8.694E+03	1.358E+03	6.40
2	56.14	56.34	56.10	55.99	62.01	61.89	58.41	8.696E+03	8.157E+02	10.66
3	62.48	56.82	57.82	62.61	56.80	57.47	59.00	8.846E+03	7.967E+02	11.10

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.50	37.60	46.56	47.60	47.50	40.22	47.55

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.94	54.55	53.86	53.84	53.72	54.34	54.04	8.700E+03	1.361E+03	6.39
2	56.14	56.36	56.14	56.03	62.01	61.92	58.43	8.702E+03	8.181E+02	10.64
3	62.47	56.82	57.81	62.59	56.81	57.46	58.99	8.855E+03	8.011E+02	11.05

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.43	37.55	46.38	47.42	47.35	40.12	47.38

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.07	55.85	55.29	55.02	55.02	55.56	55.30	1.251E+04	1.603E+03	7.80
2	55.90	56.03	58.52	56.81	62.46	62.48	58.70	1.250E+04	1.131E+03	11.05
3	55.74	57.81	57.02	65.87	57.82	56.67	60.16	1.270E+04	1.027E+03	12.36

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.46	37.54	46.37	47.42	47.36	40.12	47.39

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.07	55.85	55.25	54.95	55.03	55.53	55.27	1.254E+04	1.616E+03	7.76
2	55.87	56.00	58.49	56.84	62.40	62.39	58.66	1.253E+04	1.138E+03	11.01
3	65.65	57.82	57.05	65.75	57.83	56.69	60.13	1.273E+04	1.032E+03	12.33

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.65	37.49	46.46	47.37	47.47	40.20	47.42

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	57.34	57.68	57.72	57.20	57.38	57.33	57.44	1.816E+04	1.840E+03	9.87
2	58.14	58.38	58.27	58.29	57.92	58.03	58.18	1.814E+04	1.734E+03	10.46
3	59.75	58.89	59.24	60.27	58.89	58.75	59.30	1.841E+04	1.610E+03	11.44

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.66	37.46	46.47	47.38	47.46	40.20	47.42

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	57.19	57.67	57.65	57.11	57.32	57.31	57.38	1.818E+04	1.853E+03	9.81
2	58.09	58.35	58.25	58.27	57.92	58.03	58.15	1.815E+04	1.738E+03	10.44
3	59.73	58.88	59.22	60.25	58.88	58.72	59.28	1.843E+04	1.614E+03	11.42

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.07	37.68	46.62	47.55	47.59	40.45	47.57

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	61.83	62.85	61.72	61.62	61.50	62.40	61.99	3.425E+04	2.414E+03	14.18
2	62.32	62.61	62.65	62.32	62.41	62.31	62.43	3.418E+04	2.359E+03	14.49
3	63.07	63.04	63.67	63.72	63.20	62.94	63.27	3.465E+04	2.282E+03	15.18

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.09	37.70	46.61	47.56	47.61	40.47	47.58

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	61.80	62.83	61.69	61.59	61.45	62.37	61.95	3.442E+04	2.435E+03	14.14
2	62.20	62.60	62.62	62.29	62.40	62.30	62.41	3.435E+04	2.376E+03	14.45
3	63.03	63.02	63.62	63.67	63.19	62.94	63.25	3.485E+04	2.300E+03	15.14

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.78	37.66	46.55	47.48	47.54	40.33	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.98	66.93	64.85	64.87	64.61	66.33	65.43	5.574E+04	3.171E+03	17.58
2	65.37	65.62	65.67	65.24	65.56	65.34	65.47	5.562E+04	3.184E+03	17.47
3	65.88	65.63	65.97	66.16	66.05	65.67	65.89	5.636E+04	3.175E+03	17.75

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.82	37.66	46.51	47.46	47.53	40.33	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.94	66.85	64.81	64.83	64.54	66.24	65.37	5.586E+04	3.188E+03	17.52
2	65.38	65.59	65.62	65.20	65.54	65.33	65.44	5.572E+04	3.193E+03	17.45
3	65.87	65.61	65.94	66.14	66.04	65.63	65.87	5.648E+04	3.185E+03	17.73

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.78	37.72	46.55	47.45	47.54	40.35	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	67.10	69.76	67.11	67.03	66.81	69.00	67.80	7.631E+04	3.843E+03	19.86
2	67.57	67.82	67.78	67.28	67.75	67.35	67.59	7.612E+04	3.902E+03	19.51
3	68.09	67.73	67.88	68.19	68.16	67.71	67.96	7.710E+04	3.909E+03	19.72

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.85	37.76	46.56	47.45	47.53	40.39	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	67.10	69.76	67.10	67.02	66.75	68.98	67.78	7.630E+04	3.846E+03	19.84
2	67.56	67.81	67.79	67.28	67.75	67.37	67.59	7.614E+04	3.903E+03	19.51
3	68.09	67.73	67.90	68.19	68.18	67.72	67.97	7.714E+04	3.909E+03	19.73

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.13	38.24	46.52	47.42	47.52	40.63	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	68.04	71.20	68.11	67.95	67.81	70.40	68.92	8.719E+04	4.164E+03	20.94
2	68.54	68.82	68.75	68.20	68.76	68.24	68.55	8.699E+04	4.258E+03	20.43
3	69.04	68.61	68.76	69.07	69.04	68.55	68.85	8.814E+04	4.284E+03	20.57

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.24	38.29	46.56	47.43	47.55	40.70	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	68.06	71.22	68.12	67.96	67.64	70.41	68.93	8.657E+04	4.134E+03	20.94
2	68.56	68.82	68.76	68.22	68.78	68.26	68.57	8.635E+04	4.227E+03	20.43
3	69.04	68.62	68.78	69.08	69.05	68.57	68.86	8.751E+04	4.254E+03	20.57

NOTE: 20 X-Y pairs were stored in plot data file PISMB15

Disk number = 04  
File name = DSMD16  
This data set taken on : 01:26:08:24:51

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.83	35.79	46.62	47.51	47.61	39.41	47.56

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	68.99	72.54	69.18	68.89	68.80	71.70	70.02	9.526E+04	4.348E+03	21.91
2	69.38	69.69	69.61	69.04	69.68	69.07	69.41	9.506E+04	4.493E+03	21.16
3	69.84	69.37	69.52	69.82	69.78	69.27	69.60	9.627E+04	4.542E+03	21.19

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.01	35.94	46.63	47.51	47.62	39.53	47.56

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	69.00	72.53	69.18	68.89	68.78	71.69	70.01	9.509E+04	4.341E+03	21.90
2	69.38	69.68	69.60	69.04	69.68	69.06	69.41	9.490E+04	4.486E+03	21.15
3	69.83	69.36	69.52	69.82	69.77	69.26	69.59	9.615E+04	4.537E+03	21.19

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.03	36.75	46.52	47.44	47.50	40.10	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	67.81	70.63	67.92	67.73	67.47	69.88	68.57	7.947E+04	3.850E+03	20.64
2	68.19	68.39	68.39	67.83	68.34	67.99	68.19	7.930E+04	3.943E+03	20.11
3	68.52	68.02	69.20	68.53	68.45	67.99	68.29	8.034E+04	4.005E+03	20.06

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.10	36.72	46.51	47.44	47.51	40.11	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	67.80	70.58	67.90	67.70	67.52	69.82	68.55	7.939E+04	3.852E+03	20.61
2	68.17	68.37	68.35	67.78	68.30	67.95	68.15	7.923E+04	3.947E+03	20.07
3	68.47	67.98	68.16	68.49	68.40	67.95	68.24	8.028E+04	4.012E+03	20.01

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.74	37.10	46.55	47.43	47.49	40.47	47.46

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	63.67	65.24	63.89	63.63	63.35	64.65	64.07	4.961E+04	3.044E+03	16.30
2	64.05	64.17	64.38	63.75	64.05	64.17	64.09	4.950E+04	3.061E+03	16.17
3	64.24	63.93	64.26	64.57	64.28	64.03	64.22	5.017E+04	3.105E+03	16.15

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.75	37.12	46.56	47.44	47.50	40.48	47.47			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	63.71	65.26	63.92	63.64	63.34	64.67	64.09	4.950E+04	3.035E+03	16.31
2	64.05	64.12	64.38	63.75	64.05	64.18	64.09	4.941E+04	3.057E+03	16.16
3	64.24	63.92	64.26	64.59	64.27	64.03	64.22	5.005E+04	3.100E+03	16.15

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.09	38.04	46.55	47.40	47.44	40.90	47.42			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	59.65	60.46	59.83	59.55	59.32	60.00	59.80	2.955E+04	2.420E+03	12.17
2	60.04	60.14	60.44	59.92	60.05	60.32	60.15	2.949E+04	2.383E+03	12.38
3	60.30	60.19	60.58	60.87	60.44	60.27	60.44	2.991E+04	2.389E+03	12.52

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.11	38.08	46.55	47.42	47.46	40.91	47.44			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	59.65	60.49	59.88	59.56	59.33	60.03	59.82	2.961E+04	2.433E+03	12.17
2	60.07	60.17	60.45	59.95	60.07	60.35	60.18	2.955E+04	2.385E+03	12.39
3	60.34	60.20	60.59	60.90	60.47	60.30	60.47	2.995E+04	2.391E+03	12.53

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.10	37.89	46.65	47.50	47.50	40.88	47.50			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.39	55.78	55.58	55.32	55.20	55.49	55.46	1.431E+04	1.828E+03	7.83
2	56.02	56.15	56.29	56.13	55.99	56.22	56.13	1.430E+04	1.711E+03	8.36
3	56.20	56.27	56.50	56.63	56.35	56.22	56.36	1.452E+04	1.721E+03	8.44

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.04	37.85	46.63	47.49	47.49	40.84	47.49			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.39	55.78	55.54	55.34	55.25	55.46	55.46	1.430E+04	1.825E+03	7.84
2	56.04	56.20	56.28	56.01	55.98	56.18	56.11	1.429E+04	1.712E+03	8.35
3	56.19	56.24	56.48	56.62	56.33	56.23	56.35	1.452E+04	1.720E+03	8.44

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.85	37.68	46.65	47.50	47.51	40.73	47.51			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.86	54.15	54.02	53.77	53.76	53.93	53.92	9.922E+03	1.574E+03	6.30
2	54.45	54.49	54.66	54.54	54.46	54.57	54.53	9.924E+03	1.465E+03	6.77
3	54.72	54.82	54.98	55.05	54.85	54.77	54.86	1.009E+04	1.450E+03	6.96

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.79	37.64	46.67	47.52	47.53	40.70	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.87	54.17	54.07	53.80	53.83	53.95	53.95	9.909E+03	1.569E+03	6.32
2	54.50	54.53	54.70	54.62	54.47	54.61	54.57	9.912E+03	1.458E+03	6.80
3	54.73	54.85	55.00	55.07	54.89	54.79	54.89	1.008E+04	1.446E+03	6.97

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.48	37.35	46.62	47.47	47.48	40.48	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.55	52.80	52.74	52.49	52.66	52.67	52.65	6.807E+03	1.338E+03	5.09
2	53.11	53.17	53.32	53.22	53.22	53.26	53.22	6.817E+03	1.237E+03	5.51
3	53.61	53.71	53.89	53.88	53.76	53.74	53.77	6.941E+03	1.174E+03	5.91

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.45	37.32	46.62	47.47	47.47	40.46	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.56	52.86	52.76	52.52	52.62	52.74	52.68	6.798E+03	1.328E+03	5.12
2	53.10	53.17	53.32	53.26	53.22	53.27	53.22	6.805E+03	1.232E+03	5.52
3	53.61	53.72	53.88	53.87	53.73	53.74	53.76	6.930E+03	1.173E+03	5.91

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.70	37.45	45.69	47.54	47.51	40.61	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	51.17	51.51	51.37	51.12	51.31	51.44	51.22	3.992E+03	1.073E+03	3.72
2	51.69	51.74	51.91	51.85	51.90	51.90	51.83	4.005E+03	9.793E+02	4.09
3	52.67	52.75	52.86	52.82	52.77	52.78	52.78	4.086E+03	8.358E+02	4.89

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.60	37.50	46.70	47.54	47.53	40.60	47.54

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	51.17	51.51	51.37	51.13	51.34	51.43	51.22	4.009E+03	1.080E+03	3.71
2	51.71	51.76	51.92	51.87	51.89	51.90	51.84	4.021E+03	9.842E+02	4.09
3	52.67	52.77	52.86	52.83	52.78	52.78	52.78	4.102E+03	8.402E+02	4.88

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.70	37.38	45.77	47.55	47.51	40.64	47.53

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	45.81	50.10	49.96	49.79	49.97	50.08	49.95	2.036E+03	8.626E+02	2.35
2	50.47	50.50	50.61	50.59	50.60	50.61	50.56	2.048E+03	7.239E+02	2.63
3	51.97	51.94	51.97	51.93	51.97	51.92	51.92	2.094E+03	5.183E+02	4.04

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.78	37.40	46.77	47.56	47.51	40.65	47.53			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	49.83	50.11	49.99	49.80	49.99	50.07	49.96	2.030E+03	8.575E+02	2.37
2	50.49	50.53	50.62	50.59	50.58	50.58	50.57	2.044E+03	7.235E+02	2.83
3	51.82	51.97	51.94	51.93	51.99	51.93	51.93	2.090E+03	5.167E+02	4.04

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.33	37.26	46.76	47.46	47.46	40.45	47.46			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	49.04	49.20	49.15	49.04	49.15	49.20	49.13	1.136E+03	7.070E+02	1.61
2	49.81	49.82	49.87	49.89	49.75	49.81	49.82	1.147E+03	5.316E+02	2.16
3	50.99	51.28	51.20	51.04	51.30	51.22	51.17	1.175E+03	3.498E+02	3.36

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.27	37.23	46.76	47.46	47.46	40.42	47.46			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	49.05	49.21	49.14	49.05	49.16	49.20	49.14	1.137E+03	7.033E+02	1.62
2	49.82	49.82	49.87	49.87	49.75	49.80	49.82	1.148E+03	5.321E+02	2.16
3	51.01	51.29	51.20	51.07	51.30	51.22	51.18	1.175E+03	3.485E+02	3.37

NOTE: 20 X-Y pairs were stored in plot data file PDSMD16

Dist number = 05

File name: ISMC17

This data set taken on: 01-24-08-22-07

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	33.77	34.62	46.68	47.57	47.60	38.36	47.58			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	50.70	50.76	50.81	50.75	50.75	50.70	50.75	1.316E+03	4.245E+02	3.10
2	53.16	53.14	52.91	53.13	52.36	52.51	52.87	1.328E+03	2.614E+02	5.08
3	53.25	54.15	54.20	53.36	54.15	54.19	53.88	1.361E+03	2.288E+02	5.95
4	54.44	53.45	54.45	54.52	54.53	53.70	54.18	1.312E+03	2.150E+02	6.10

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	33.84	34.64	46.67	47.57	47.53	38.39	47.55			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	50.84	50.84	51.03	50.89	50.93	50.77	50.88	1.314E+03	4.013E+02	3.27
2	53.19	53.20	53.22	53.39	52.62	52.77	53.07	1.326E+03	2.495E+02	5.31
3	53.41	54.20	54.15	53.52	54.22	54.16	53.94	1.357E+03	2.246E+02	6.04
4	54.49	53.57	54.49	54.50	54.52	53.80	54.23	1.309E+03	2.117E+02	6.19

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.53	34.79	46.25	47.42	47.32	38.52	47.37

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.61	51.62	52.16	52.68	52.04	51.50	52.10	2.844E+03	6.105E+02	4.66
2	57.27	57.24	58.17	58.17	57.56	57.77	57.70	2.858E+03	2.826E+02	10.11
3	58.61	59.11	58.03	58.75	59.14	58.09	58.62	2.916E+03	2.677E+02	10.89
4	60.38	59.51	60.38	59.43	59.45	59.82	59.83	2.816E+03	2.355E+02	11.95

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.52	34.87	46.28	47.42	47.35	38.56	47.38

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.70	51.66	52.35	52.79	52.20	51.53	52.21	2.846E+03	5.986E+02	4.75
2	57.20	57.17	58.09	58.11	57.47	57.67	57.62	2.859E+03	2.853E+02	10.02
3	58.38	58.83	57.79	58.50	58.88	57.87	58.38	2.918E+03	2.743E+02	10.64
4	59.99	59.18	59.97	59.10	59.14	59.48	59.48	2.816E+03	2.429E+02	11.59

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.51	34.89	46.08	47.34	47.56	38.49	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.38	52.75	53.50	55.44	53.48	52.59	53.86	4.990E+03	7.886E+02	6.33
2	62.55	62.49	63.65	63.81	62.52	62.85	62.98	4.998E+03	3.265E+02	15.31
3	63.23	64.22	62.91	63.48	64.26	62.92	63.50	5.093E+03	3.247E+02	15.69
4	65.31	64.03	65.30	63.91	63.93	64.52	64.50	4.921E+03	2.975E+02	16.54

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.50	34.84	46.09	47.35	47.41	38.48	47.38

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.07	52.80	53.43	55.10	53.40	52.64	53.74	4.994E+03	7.956E+02	6.28
2	62.36	62.31	63.67	63.81	62.47	62.81	62.91	5.006E+03	3.272E+02	15.30
3	63.45	64.43	63.04	63.67	64.47	63.06	63.69	5.100E+03	3.200E+02	15.94
4	65.53	64.17	65.49	64.10	64.13	64.61	64.67	4.926E+03	2.936E+02	16.78

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.57	34.93	46.60	47.53	47.49	38.70	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.37	53.30	52.80	53.36	52.65	53.15	53.10	6.830E+03	1.241E+03	5.50
2	58.26	58.30	55.56	55.21	58.05	57.93	57.22	6.838E+03	7.217E+02	9.47
3	57.97	56.57	59.33	58.05	56.58	59.24	57.94	6.954E+03	6.927E+02	10.05
4	63.94	62.97	63.95	62.68	62.67	63.35	63.26	6.725E+03	4.416E+02	15.23

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.58	34.95	46.56	47.55	47.50	38.70	47.52

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.37	53.27	52.82	53.36	52.66	53.13	53.10	6.836E+03	1.245E+03	5.49
2	58.19	58.25	55.55	55.21	58.09	57.86	57.19	6.844E+03	7.254E+02	9.44
3	57.96	56.51	59.30	58.06	56.45	59.25	57.92	6.967E+03	6.953E+02	10.02
4	63.93	62.94	63.95	62.69	62.69	63.40	63.27	6.733E+03	4.423E+02	15.22

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.88	35.03	46.54	47.52	47.47	38.48	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.95	53.94	53.30	53.89	53.12	53.77	53.66	8.297E+03	1.245E+03	6.07
2	59.22	59.28	56.09	55.60	58.83	58.60	57.94	8.301E+03	8.136E+02	10.20
3	59.19	56.98	60.59	59.31	56.93	60.46	58.91	8.448E+03	7.656E+02	11.03
4	66.60	65.53	66.62	65.08	65.08	65.99	65.82	8.166E+03	4.589E+02	17.80

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.89	35.04	46.51	47.49	47.49	38.48	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.89	53.89	53.31	53.86	53.15	53.73	53.64	8.292E+03	1.370E+03	6.05
2	59.01	59.07	55.81	55.50	58.46	57.96	57.63	8.297E+03	8.380E+02	9.90
3	58.20	56.87	60.56	58.35	56.82	60.45	58.54	8.448E+03	7.921E+02	10.66
4	66.36	65.17	66.36	64.88	64.87	65.67	65.55	8.158E+03	4.653E+02	17.53

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.04	35.13	46.46	47.37	47.43	38.54	47.40

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	54.48	55.41	54.61	54.42	54.36	55.21	54.75	1.193E+04	1.650E+03	7.23
2	55.46	55.62	56.23	55.79	58.23	57.71	56.50	1.192E+04	1.348E+03	8.84
3	59.72	57.00	56.93	59.95	57.02	56.66	57.88	1.211E+04	1.202E+03	10.07
4	68.36	67.03	68.32	67.04	66.99	67.33	67.51	1.171E+04	5.988E+02	19.56

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.07	35.14	46.47	47.39	47.45	38.56	47.42

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	54.59	55.44	54.67	54.56	54.39	55.25	54.82	1.192E+04	1.638E+03	7.28
2	55.51	55.68	56.25	55.81	58.27	57.70	56.54	1.192E+04	1.346E+03	8.85
3	59.74	57.03	56.94	59.96	57.02	56.66	57.89	1.211E+04	1.203E+03	10.06
4	68.37	67.09	68.34	67.11	67.07	67.39	67.56	1.171E+04	5.978E+02	19.59

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.80	35.37	46.52	47.50	47.55	38.90	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	56.66	57.39	56.83	56.57	56.48	57.11	56.84	1.740E+04	1.898E+03	9.17
2	57.51	57.73	57.86	57.69	57.91	57.86	57.76	1.738E+04	1.748E+03	9.94
3	61.05	58.56	58.45	61.37	58.66	58.08	59.36	1.765E+04	1.548E+03	11.40
4	64.45	69.69	64.51	61.85	61.76	69.55	65.30	1.707E+04	9.926E+02	17.20

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.85	35.42	46.53	47.49	47.55	38.93	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	56.63	57.38	56.81	56.55	56.47	57.09	56.82	1.743E+04	1.904E+03	9.16
2	57.51	57.70	57.85	57.66	57.86	57.86	57.74	1.742E+04	1.754E+03	9.93
3	61.00	58.54	58.43	61.33	58.65	58.08	59.34	1.768E+04	1.553E+03	11.38
4	64.44	69.72	64.50	61.82	61.73	69.61	65.30	1.711E+04	9.942E+02	17.21

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.46	35.61	46.52	47.42	47.50	38.87	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	61.19	62.24	61.16	61.01	60.91	61.83	61.39	3.326E+04	2.429E+03	13.70
2	61.76	62.04	62.26	61.71	62.03	61.93	61.95	3.319E+04	2.351E+03	14.12
3	62.17	62.51	62.88	62.76	62.61	62.38	62.55	3.367E+04	2.311E+03	14.57
4	64.60	66.65	64.98	64.47	64.28	66.87	65.31	3.250E+04	1.897E+03	17.19

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
34.59	35.66	46.54	47.44	47.52	38.93	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	61.21	62.24	61.14	61.03	60.84	61.82	61.38	3.339E+04	2.443E+03	13.67
2	61.77	62.06	62.25	61.70	62.16	61.94	61.98	3.332E+04	2.359E+03	14.12
3	62.17	62.50	62.88	62.74	62.62	62.38	62.55	3.380E+04	2.324E+03	14.54
4	64.63	66.65	65.00	64.47	64.29	66.89	65.32	3.273E+04	1.905E+03	17.18

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
35.23	36.05	46.54	47.48	47.54	39.27	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.86	66.81	64.75	64.72	64.52	66.15	65.30	5.540E+04	3.174E+03	17.45
2	65.39	65.70	65.69	65.22	65.63	65.25	65.48	5.527E+04	3.161E+03	17.48
3	65.67	65.66	65.97	66.03	65.99	65.67	65.83	5.603E+04	3.168E+03	17.69
4	67.77	68.40	68.58	67.05	66.85	69.43	68.01	5.427E+04	2.750E+03	19.74

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.44	36.14	46.54	47.47	47.53	39.37	47.50

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	64.84	66.78	64.68	64.71	64.43	66.11	65.26	5.539E+04	3.181E+03	17.41
2	65.30	65.63	65.66	65.18	65.60	65.21	65.43	5.527E+04	3.168E+03	17.44
3	65.63	65.61	65.88	65.97	65.96	65.62	65.78	5.601E+04	3.175E+03	17.64
4	67.79	68.40	68.60	67.06	66.85	69.44	68.02	5.424E+04	2.746E+03	19.75

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.47	36.86	46.68	47.51	47.63	40.00	47.57

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	66.65	69.16	66.61	66.57	66.24	68.42	67.28	7.262E+04	3.768E+03	19.27
2	67.22	67.48	67.47	67.04	67.41	67.02	67.27	7.246E+04	3.788E+03	19.13
3	67.67	67.40	67.68	67.82	67.80	67.41	67.63	7.342E+04	3.798E+03	19.33
4	69.57	70.24	70.70	68.71	68.47	71.52	69.87	7.110E+04	3.316E+03	21.44

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.62	36.99	46.68	47.51	47.62	40.10	47.57

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	66.67	69.18	66.63	66.57	66.28	68.42	67.29	7.264E+04	3.765E+03	19.29
2	67.14	67.41	67.49	67.02	67.46	67.00	67.25	7.248E+04	3.793E+03	19.11
3	67.67	67.41	67.66	67.81	67.80	67.40	67.62	7.342E+04	3.798E+03	19.33
4	69.56	70.24	70.72	68.72	68.47	71.53	69.87	7.109E+04	3.315E+03	21.45

Data Set Number = 21

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.57	37.68	46.55	47.36	47.51	40.27	47.43

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	68.13	71.38	68.22	68.06	67.90	70.56	69.04	9.024E+04	4.280E+03	21.08
2	68.59	68.96	68.87	68.35	68.95	68.28	68.67	9.004E+04	4.378E+03	20.57
3	69.14	68.79	69.04	69.25	69.13	68.67	69.00	9.119E+04	4.394E+03	20.75
4	70.81	71.79	72.39	69.95	69.61	73.22	71.30	8.829E+04	3.853E+03	22.91

Data Set Number = 22

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.62	37.73	46.57	47.36	47.51	40.31	47.44

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	68.14	71.40	68.21	68.06	67.88	70.56	69.04	9.020E+04	4.279E+03	21.08
2	68.66	68.95	68.87	68.36	68.87	68.30	68.67	9.000E+04	4.376E+03	20.57
3	69.16	68.80	69.04	69.27	69.13	68.67	69.01	9.117E+04	4.392E+03	20.76
4	70.81	71.79	72.39	69.96	69.61	73.23	71.30	8.829E+04	3.853E+03	22.92

NOTE: 22 X-Y pairs were stored in plot data file PISMCI7

Disk number = 05  
 File name: ISMA18  
 This data set taken on : 01:27:13:09:36

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	38.39	38.08	46.74	47.46	47.46	41.07	47.46	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	49.24	49.41	49.27	49.23	49.30	49.39	49.31	1.222E+03	6.850E+02	1.78
2	49.74	49.77	49.72	49.74	49.78	49.69	49.74	1.232E+03	5.937E+02	2.08
3	50.36	50.48	50.56	50.43	50.50	50.55	50.48	1.261E+03	4.721E+02	2.67
4	51.92	51.72	51.97	51.85	51.88	51.85	51.86	1.216E+03	3.108E+02	3.91

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	38.34	38.10	46.79	47.51	47.51	41.08	47.51	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	49.29	49.43	49.34	49.29	49.34	49.41	49.35	1.222E+03	6.864E+02	1.78
2	49.81	49.81	49.81	49.82	49.74	49.76	49.79	1.234E+03	5.942E+02	2.08
3	50.45	50.58	50.62	50.53	50.59	50.58	50.56	1.262E+03	4.675E+02	2.70
4	52.03	51.82	52.08	51.89	51.91	51.94	51.94	1.216E+03	3.085E+02	3.94

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.97	37.97	46.72	47.53	47.52	40.89	47.53	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.35	50.67	50.45	50.32	50.43	50.64	50.48	2.594E+03	9.000E+02	2.88
2	50.78	50.80	50.90	50.87	50.83	50.92	50.85	2.600E+03	8.387E+02	3.11
3	51.41	51.54	51.57	51.53	51.55	51.52	51.52	2.664E+03	7.329E+02	3.63
4	53.01	53.10	53.06	53.00	53.02	53.24	53.07	2.568E+03	5.090E+02	5.04

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	38.05	37.98	46.73	47.57	47.52	40.92	47.55	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.35	50.70	50.48	50.34	50.48	50.66	50.50	2.596E+03	9.000E+02	2.88
2	50.80	50.84	50.92	50.90	50.98	50.92	50.89	2.610E+03	8.329E+02	3.13
3	51.43	51.55	51.60	51.55	51.56	51.54	51.54	2.664E+03	7.330E+02	3.63
4	53.00	53.10	53.04	53.02	53.03	53.20	53.06	2.572E+03	5.127E+02	5.02

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	37.34	37.31	46.65	47.58	47.54	40.43	47.56	

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.81	52.29	52.07	51.77	52.04	52.17	52.02	4.726E+03	1.078E+03	4.39
2	52.09	52.14	52.41	52.33	52.50	52.47	52.32	4.739E+03	1.044E+03	4.54
3	52.82	52.89	52.85	53.01	52.91	52.74	52.67	4.834E+03	9.785E+02	4.94
4	53.87	54.42	53.96	53.93	53.95	54.52	54.11	4.665E+03	7.720E+02	6.03

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.31	37.26	46.66	47.56	47.54	40.41	47.55

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	51.72	52.22	51.97	51.66	51.92	52.13	51.94	4.716E+03	1.095E+03	4.31
2	52.10	52.13	52.41	52.32	52.43	52.49	52.31	4.732E+03	1.043E+03	4.54
3	52.02	52.09	52.82	53.01	52.91	52.71	52.86	4.822E+03	9.761E+02	4.94
4	53.03	54.35	53.92	53.85	53.87	54.47	54.05	4.655E+03	7.776E+02	5.99

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.03	37.09	46.60	47.56	47.56	40.24	47.56

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	53.47	54.03	53.79	53.44	53.69	53.86	53.71	7.702E+03	1.271E+03	6.06
2	53.80	53.88	54.19	54.09	54.13	54.24	54.05	7.712E+03	1.233E+03	6.26
3	54.37	54.43	54.40	54.64	54.45	54.24	54.42	7.848E+03	1.211E+03	6.48
4	55.07	55.86	55.19	55.17	55.17	55.97	55.40	7.583E+03	1.036E+03	7.32

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.06	37.09	46.58	47.54	47.53	40.24	47.54

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	53.42	54.03	53.71	53.41	53.60	53.86	53.67	7.681E+03	1.272E+03	6.04
2	53.73	53.80	54.15	54.02	54.16	54.21	54.01	7.688E+03	1.233E+03	6.23
3	54.33	54.38	54.34	54.61	54.40	54.18	54.37	7.823E+03	1.213E+03	6.45
4	55.02	55.83	55.14	55.12	55.11	55.97	55.37	7.558E+03	1.035E+03	7.30

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.07	37.03	46.52	47.50	47.53	40.20	47.51

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	54.95	55.53	55.31	54.93	55.16	55.31	55.20	1.063E+04	1.405E+03	7.57
2	55.32	55.44	55.72	55.62	55.57	55.74	55.57	1.063E+04	1.363E+03	7.80
3	55.70	55.77	55.79	56.05	55.81	55.56	55.78	1.081E+04	1.374E+03	7.87
4	56.34	57.28	56.48	55.44	56.40	57.42	56.73	1.045E+04	1.205E+03	8.67

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.09	37.00	46.51	47.51	47.54	40.20	47.53

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	55.00	55.56	55.34	54.91	55.04	55.31	55.19	1.064E+04	1.408E+03	7.55
2	55.30	55.38	55.72	55.61	55.61	55.74	55.56	1.064E+04	1.368E+03	7.78
3	55.70	55.76	55.74	56.04	55.79	55.56	55.77	1.082E+04	1.380E+03	7.84
4	56.34	57.31	56.48	56.42	56.39	57.45	56.73	1.045E+04	1.206E+03	8.66

Data Set Number = 11

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.35	37.34	46.46	47.47	47.50	40.38	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	57.22	57.83	57.66	57.17	57.22	57.48	57.43	1.613E+04	1.645E+03	9.81
2	57.74	57.90	58.04	57.86	57.63	57.91	57.85	1.611E+04	1.589E+03	10.00
3	57.63	57.80	57.86	59.10	57.81	57.58	57.80	1.636E+04	1.656E+03	9.88
4	58.60	59.77	58.77	58.62	58.52	59.88	59.03	1.583E+04	1.443E+03	10.97

Data Set Number = 12

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.39	37.32	46.40	47.46	47.46	40.37	47.46

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	57.17	57.82	57.57	57.13	57.16	57.47	57.39	1.618E+04	1.653E+03	9.79
2	57.69	57.83	57.98	57.80	57.68	57.87	57.81	1.616E+04	1.605E+03	10.05
3	57.56	57.79	57.80	58.04	57.77	57.52	57.75	1.642E+04	1.666E+03	9.86
4	58.55	59.70	58.73	58.57	58.47	59.83	58.97	1.587E+04	1.450E+03	10.94

Data Set Number = 13

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.64	37.78	46.51	47.49	47.56	40.64	47.52

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	61.89	62.67	61.92	61.70	61.52	62.17	61.98	3.194E+04	2.243E+03	14.24
2	61.83	62.02	62.10	61.59	62.17	62.04	61.96	3.188E+04	2.266E+03	14.07
3	61.60	61.52	61.97	62.26	61.62	61.56	61.76	3.232E+04	2.356E+03	13.72
4	63.11	64.13	63.67	63.40	63.14	64.52	63.66	3.127E+04	2.019E+03	15.49

Data Set Number = 14

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
37.57	37.81	46.51	47.49	47.55	40.63	47.52

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	61.82	62.61	61.83	61.61	61.39	62.12	61.89	3.185E+04	2.250E+03	14.15
2	61.75	61.94	62.04	61.53	61.99	61.90	61.87	3.180E+04	2.273E+03	13.99
3	61.56	61.51	61.94	62.20	61.56	61.52	61.72	3.223E+04	2.355E+03	13.68
4	63.11	64.08	63.66	63.38	63.14	64.49	63.64	3.119E+04	2.016E+03	15.47

Data Set Number = 15

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
36.76	37.85	46.51	47.43	47.48	40.37	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	64.94	65.87	65.05	64.85	64.74	66.26	65.45	5.355E+04	3.031E+03	17.66
2	65.16	65.37	65.43	64.90	65.30	65.13	65.22	5.343E+04	3.091E+03	17.28
3	64.89	64.49	64.82	65.20	64.81	64.60	64.80	5.415E+04	3.239E+03	16.72
4	66.32	67.04	67.20	66.09	65.91	68.00	66.76	5.241E+04	2.825E+03	18.54

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.74	37.78	46.52	47.40	47.46	40.35	47.43

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	64.92	66.85	65.03	64.83	64.69	66.24	65.42	5.329E+04	3.018E+03	17.66
2	65.11	65.32	65.40	64.88	65.24	65.11	65.18	5.317E+04	3.080E+03	17.27
3	64.86	64.47	64.77	65.15	64.78	64.55	64.76	5.389E+04	3.226E+03	16.70
4	66.26	67.02	67.16	66.06	65.87	67.96	66.72	5.217E+04	2.815E+03	18.53

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.07	37.15	46.70	47.53	47.62	40.31	47.57

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	67.33	70.05	67.50	67.28	67.09	69.35	68.10	7.494E+04	3.732E+03	20.08
2	67.58	67.76	67.78	67.27	67.65	67.37	67.57	7.478E+04	3.853E+03	19.41
3	67.53	67.06	67.33	67.67	67.45	67.07	67.35	7.575E+04	3.979E+03	19.04
4	68.90	69.89	70.21	68.43	68.19	71.15	69.46	7.330E+04	3.488E+03	21.02

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.12	37.19	46.69	47.54	47.63	40.34	47.58

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	67.35	70.10	67.49	67.28	67.10	69.37	68.11	7.508E+04	3.738E+03	20.08
2	67.58	67.77	67.77	67.24	67.65	67.37	67.56	7.492E+04	3.863E+03	19.39
3	67.55	67.08	67.34	67.67	67.44	67.09	67.36	7.589E+04	3.987E+03	19.04
4	68.89	69.91	70.20	68.43	68.18	71.17	69.46	7.345E+04	3.496E+03	21.01

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.98	36.95	46.63	47.40	47.56	40.19	47.48

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	68.82	72.30	69.11	68.78	68.62	71.48	69.85	9.292E+04	4.255E+03	21.84
2	69.09	69.33	69.27	68.69	69.21	68.69	69.05	9.274E+04	4.440E+03	20.89
3	69.25	68.75	69.00	69.29	69.12	68.64	69.01	9.394E+04	4.538E+03	20.70
4	70.47	71.76	72.22	69.90	69.55	73.19	71.18	9.092E+04	3.998E+03	22.74

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.98	36.95	46.62	47.39	47.54	40.18	47.47

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	68.82	72.29	69.10	68.78	68.61	71.48	69.85	9.322E+04	4.269E+03	21.84
2	69.08	69.31	69.27	68.71	69.20	68.69	69.04	9.301E+04	4.452E+03	20.89
3	69.25	68.75	68.99	69.27	69.12	68.63	69.00	9.422E+04	4.551E+03	20.70
4	70.47	71.73	72.20	69.90	69.54	73.17	71.17	9.116E+04	4.009E+03	22.74

NOTE 20 X-Y pairs were stored in plot data file P15MA18

Disk number = 05  
 File name: ISMR19  
 This data set taken on = 01:26:12:27:03

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.63	37.37	46.67	47.49	47.61	40.56	47.55

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	50.23	50.19	50.37	50.24	50.30	50.12	50.24	1.090E+03	4.146E+02	2.63
2	52.31	52.30	52.22	52.38	51.68	51.81	52.12	1.101E+03	2.524E+02	4.36
3	52.42	53.12	53.11	52.51	53.15	53.13	52.91	1.129E+03	2.255E+02	5.01
4	53.31	52.50	53.32	53.35	53.38	52.71	53.09	1.088E+03	2.155E+02	5.05

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.64	37.36	46.68	47.49	47.56	40.56	47.52

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	50.17	50.13	50.23	50.20	50.18	50.07	50.16	1.094E+03	4.240E+02	2.58
2	52.27	52.27	52.04	52.21	51.55	51.67	52.00	1.104E+03	2.585E+02	4.27
3	52.33	53.10	53.16	52.42	53.13	53.16	52.88	1.132E+03	2.258E+02	5.01
4	53.32	52.48	53.32	53.39	53.41	52.67	53.09	1.091E+03	2.148E+02	5.08

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.42	38.31	46.39	47.49	47.26	40.70	47.38

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.00	51.41	50.87	51.05	50.80	51.38	51.09	1.991E+03	5.464E+02	3.64
2	53.66	53.65	52.58	52.32	53.64	53.74	53.60	2.004E+03	5.333E+02	6.01
3	55.51	55.97	55.32	55.62	56.02	55.37	55.64	2.049E+03	2.592E+02	7.91
4	56.84	55.98	56.02	56.34	56.39	56.23	56.43	1.978E+03	2.310E+02	8.56

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.42	38.35	46.38	47.49	47.28	40.72	47.38

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.05	51.37	52.89	51.10	50.90	51.29	51.10	1.995E+03	5.467E+02	3.65
2	53.62	53.60	52.45	52.24	53.31	52.44	53.44	2.009E+03	5.435E+02	5.85
3	55.28	55.85	55.25	55.39	55.88	55.28	55.49	2.052E+03	2.647E+02	7.75
4	56.48	55.67	56.50	56.02	56.04	55.93	56.11	1.979E+03	2.406E+02	8.22

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.76	36.42	46.48	47.45	47.39	40.89	47.42

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	52.36	51.76	51.65	52.41	51.63	51.68	51.92	3.999E+03	9.047E+02	4.42
2	54.81	54.68	52.99	52.94	52.74	52.72	53.45	4.013E+03	6.911E+02	5.81
3	54.17	54.53	55.98	54.39	54.56	55.78	54.89	4.094E+03	5.765E+02	7.10
4	59.27	58.87	59.23	58.54	58.55	59.19	58.93	3.955E+03	3.594E+02	11.00

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.74	38.43	46.49	47.47	47.40	40.89	47.44

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	52.38	51.85	51.71	52.36	51.66	51.76	51.95	3.999E+03	9.009E+02	4.44
2	54.81	54.79	53.14	53.01	52.82	52.82	53.57	4.014E+03	6.794E+02	5.91
3	54.13	54.48	55.90	54.37	54.52	55.85	54.87	4.092E+03	5.787E+02	7.07
4	59.11	58.77	59.15	58.60	58.64	59.08	58.89	3.951E+03	3.610E+02	10.94

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.69	38.39	46.46	47.47	47.40	40.85	47.43

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.40	53.68	52.96	53.35	52.87	53.60	53.31	6.919E+03	1.196E+03	5.79
2	56.99	57.04	54.12	54.05	54.50	54.39	55.18	6.929E+03	9.220E+02	7.52
3	54.82	54.89	57.95	55.11	54.89	57.79	55.91	7.051E+03	8.709E+02	8.10
4	58.54	60.72	58.68	58.62	58.64	60.96	59.36	6.817E+03	5.977E+02	11.41

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.66	38.39	46.48	47.49	47.41	40.84	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.43	53.71	52.99	53.41	52.88	53.64	53.34	6.861E+03	1.183E+03	5.80
2	56.97	57.03	54.08	54.03	54.45	54.34	55.15	6.868E+03	9.201E+02	7.46
3	54.79	54.84	58.02	55.09	54.84	57.85	55.91	6.993E+03	8.658E+02	8.08
4	58.55	60.76	58.69	58.69	58.70	61.00	59.40	6.764E+03	5.920E+02	11.42

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.57	38.26	46.46	47.46	47.40	40.56	47.44

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	54.44	55.35	54.31	54.37	54.08	55.25	54.64	9.864E+03	1.392E+03	7.09
2	57.07	57.38	55.42	55.16	55.00	55.87	56.15	9.864E+03	1.166E+03	8.46
3	56.16	55.67	58.61	56.50	55.67	58.19	56.80	1.002E+04	1.119E+03	8.96
4	60.77	64.62	60.94	60.12	60.14	64.76	61.88	9.701E+03	6.981E+02	13.90

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.91	38.26	46.46	47.46	47.42	40.54	47.44

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	54.44	55.32	54.29	54.38	54.08	55.23	54.62	9.936E+03	1.404E+03	7.08
2	57.05	57.39	55.40	55.14	55.96	55.85	56.13	9.937E+03	1.177E+03	8.44
3	56.14	55.55	58.60	56.48	55.67	58.19	56.79	1.010E+04	1.129E+03	8.95
4	60.74	64.51	60.91	60.16	60.17	64.74	61.87	9.776E+03	7.036E+02	13.89

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.78	38.02	46.49	47.44	47.48	40.43	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.77	57.32	56.37	55.71	56.06	57.12	56.39	1.441E+04	1.630E+03	8.80
2	56.70	56.85	57.32	56.86	57.77	57.65	57.19	1.440E+04	1.524E+03	9.45
3	57.51	56.89	57.60	57.94	56.90	57.20	57.34	1.463E+04	1.547E+03	9.46
4	61.31	65.66	61.61	60.96	60.87	66.01	62.74	1.416E+04	9.624E+02	14.71

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.81	38.02	46.49	47.46	47.49	40.44	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.78	57.31	56.36	55.72	56.05	57.14	56.39	1.441E+04	1.640E+03	8.79
2	56.64	56.80	57.29	56.82	57.80	57.66	57.17	1.439E+04	1.528E+03	9.42
3	57.43	56.88	57.59	57.91	56.88	57.17	57.32	1.462E+04	1.552E+03	9.42
4	61.25	65.57	61.53	60.97	60.86	65.91	62.68	1.415E+04	9.659E+02	14.64

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.71	37.85	46.47	47.44	47.49	40.35	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	60.70	61.94	60.97	60.48	60.53	61.49	61.01	2.946E+04	2.209E+03	13.34
2	60.81	61.07	61.38	60.88	61.37	61.36	61.15	2.941E+04	2.207E+03	13.33
3	60.84	60.82	61.37	61.53	60.89	60.78	61.04	2.982E+04	2.281E+03	13.08
4	63.35	65.84	63.76	63.42	63.18	65.95	64.25	2.887E+04	1.788E+03	16.15

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.74	37.83	46.47	47.44	47.48	40.34	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	60.63	61.84	60.89	60.43	60.46	61.39	60.94	2.959E+04	2.229E+03	13.27
2	60.75	60.99	61.30	60.79	61.30	61.27	61.07	2.953E+04	2.228E+03	13.25
3	60.76	60.77	61.32	61.44	60.84	60.72	60.98	2.995E+04	2.301E+03	13.02
4	63.28	65.75	63.70	63.35	63.11	65.86	64.17	2.900E+04	1.804E+03	16.08

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.37	37.99	46.55	47.49	47.53	40.64	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	64.37	66.26	64.43	64.21	64.06	65.68	64.84	4.976E+04	2.825E+03	17.01
2	64.46	64.74	64.86	64.29	64.75	64.55	64.61	4.965E+04	2.984E+03	16.64
3	64.40	64.32	64.44	64.76	64.48	64.17	64.43	5.032E+04	3.095E+03	16.31
4	66.72	67.38	67.49	66.48	66.20	69.28	67.09	4.874E+04	2.597E+03	18.84

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.39	38.02	46.57	47.49	47.53	40.66	47.51			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	64.37	66.26	64.43	64.20	64.05	65.65	64.83	4.979E+04	2.929E+03	17.00
2	64.49	64.75	64.85	64.29	64.73	64.54	64.61	4.969E+04	2.986E+03	16.64
3	64.39	64.31	64.43	64.75	64.48	64.17	64.42	5.037E+04	3.089E+03	16.30
4	66.72	67.38	67.50	66.47	66.20	68.28	67.09	4.879E+04	2.590E+03	18.84

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.51	38.21	46.57	47.42	47.51	40.76	47.47			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	67.54	70.39	67.65	67.47	67.24	69.64	68.32	7.974E+04	3.911E+03	20.39
2	67.85	68.09	68.07	67.53	68.01	67.59	67.86	7.957E+04	4.024E+03	19.77
3	68.01	67.60	67.89	68.14	67.95	67.54	67.86	8.061E+04	4.108E+03	19.63
4	69.91	70.88	71.30	69.23	68.91	72.20	70.40	7.807E+04	3.541E+03	22.04

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.53	38.26	46.58	47.44	47.51	40.79	47.47			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	67.56	70.38	67.66	67.47	67.22	69.66	68.33	7.995E+04	3.923E+03	20.38
2	67.85	68.10	68.07	67.53	68.01	67.58	67.86	7.978E+04	4.035E+03	19.77
3	68.00	67.61	67.88	68.14	67.95	67.55	67.85	8.083E+04	4.120E+03	19.62
4	69.92	70.88	71.31	69.24	68.94	72.20	70.41	7.826E+04	3.550E+03	22.05

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.55	38.28	46.58	47.44	47.51	40.80	47.48			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	67.57	70.42	67.67	67.51	67.31	69.67	68.35	7.971E+04	3.905E+03	20.41
2	67.88	68.10	68.08	67.55	68.02	67.59	67.87	7.950E+04	4.019E+03	19.78
3	68.01	67.61	67.88	68.14	67.95	67.55	67.86	8.054E+04	4.105E+03	19.62
4	69.93	70.90	71.32	69.25	68.94	72.20	70.42	7.800E+04	3.537E+03	22.05

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	37.42	38.27	46.54	47.35	47.49	40.74	47.42			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	68.94	72.49	69.16	68.89	68.75	71.64	69.98	9.659E+04	4.391E+03	22.00
2	69.29	69.56	69.48	68.92	69.50	68.89	69.27	9.639E+04	4.557E+03	21.15
3	69.53	69.12	69.38	69.60	69.41	68.91	69.33	9.764E+04	4.638E+03	21.05
4	71.22	72.46	73.03	70.50	70.12	73.91	71.87	9.453E+04	4.027E+03	23.47

Data Set Number = 21

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.31	38.28	46.52	47.32	47.49	40.71	47.41

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	68.97	72.49	69.18	68.90	68.75	71.64	69.99	9.623E+04	4.368E+03	22.02
2	69.31	69.57	69.49	68.94	69.51	68.89	69.28	9.603E+04	4.535E+03	21.18
3	69.54	69.11	69.37	69.61	69.42	68.91	69.33	9.728E+04	4.616E+03	21.07
4	71.22	72.46	73.02	70.51	70.13	73.91	71.87	9.419E+04	4.010E+03	23.49

NOTE: 21 X-Y pairs were stored in plot data file P15MB19

Disk number = 05

File name: OSMO20

This data set taken on : 02:01:08:18:51

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.96	42.83	46.68	47.42	47.57	44.16	47.50

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	68.89	72.45	69.22	68.89	68.66	71.62	69.95	9.409E+04	4.294E+03	21.91
2	69.14	69.23	69.28	68.67	69.18	68.73	69.06	9.389E+04	4.499E+03	20.87
3	69.38	68.77	68.91	69.32	69.19	68.69	69.04	9.506E+04	4.590E+03	20.71
4	70.18	71.49	71.91	69.68	69.33	72.96	70.92	9.200E+04	4.096E+03	22.46

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.03	42.80	46.68	47.42	47.58	44.17	47.50

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	68.91	72.44	69.21	68.89	68.68	71.62	69.96	9.412E+04	4.295E+03	21.91
2	69.13	69.30	69.27	68.65	69.17	68.75	69.05	9.390E+04	4.502E+03	20.86
3	69.37	68.78	68.89	69.32	69.18	68.66	69.03	9.508E+04	4.594E+03	20.70
4	70.16	71.48	71.89	69.66	69.32	72.93	70.91	9.200E+04	4.100E+03	22.44

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.52	43.10	46.70	47.45	47.59	44.44	47.52

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	66.89	69.63	67.24	66.96	66.55	68.90	67.70	7.281E+04	3.688E+03	19.74
2	67.00	67.11	67.30	66.58	66.97	66.90	67.00	7.265E+04	3.842E+03	18.90
3	67.19	66.61	66.63	67.17	67.08	66.71	66.90	7.358E+04	3.945E+03	18.65
4	67.58	68.44	69.77	67.30	67.05	69.72	68.14	7.123E+04	3.604E+03	19.77

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.50	43.09	46.70	47.45	47.58	44.43	47.51

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	65.89	69.64	67.27	66.99	66.73	68.92	67.74	7.297E+04	3.687E+03	19.79
2	67.07	67.11	67.29	66.57	66.94	66.95	66.99	7.282E+04	3.854E+03	18.90
3	67.17	66.60	66.61	67.16	67.07	66.69	66.89	7.374E+04	3.955E+03	18.65
4	67.57	68.43	68.76	67.28	67.04	69.70	68.13	7.138E+04	3.612E+03	19.76

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.20	43.17	46.70	47.44	47.56	44.36	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	63.90	65.82	64.31	63.97	63.56	65.22	64.46	5.191E+04	3.120E+03	16.64
2	63.95	63.97	64.30	63.56	63.88	64.10	63.96	5.178E+04	3.238E+03	15.99
3	64.02	63.68	63.63	64.17	64.17	63.81	63.91	5.245E+04	3.320E+03	15.80
4	64.45	64.98	65.18	64.29	64.14	65.98	64.84	5.077E+04	3.061E+03	16.58

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.21	43.11	46.69	47.45	47.56	44.34	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	63.85	65.79	64.28	63.93	63.56	65.17	64.43	5.183E+04	3.122E+03	16.60
2	63.92	63.97	64.27	63.53	63.83	64.06	63.93	5.171E+04	3.241E+03	15.96
3	64.01	63.66	63.60	64.15	64.15	63.80	63.90	5.238E+04	3.321E+03	15.77
4	64.42	64.97	65.14	64.27	64.12	65.97	64.81	5.070E+04	3.062E+03	16.56

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.97	42.96	46.66	47.43	47.52	44.20	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	60.04	61.12	60.41	60.01	59.79	60.63	60.33	3.165E+04	2.505E+03	12.64
2	60.06	60.13	60.52	59.93	60.08	60.38	60.18	3.160E+04	2.560E+03	12.34
3	60.20	60.16	60.11	60.64	60.50	60.14	60.29	3.202E+04	2.602E+03	12.31
4	60.85	61.23	61.11	60.77	60.66	61.87	61.08	3.099E+04	2.392E+03	12.96

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.98	42.91	46.66	47.42	47.52	44.18	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	60.04	61.13	60.43	60.01	59.85	60.64	60.35	3.173E+04	2.507E+03	12.66
2	60.06	60.15	60.53	59.92	60.09	60.38	60.19	3.166E+04	2.564E+03	12.35
3	60.20	60.15	60.12	60.64	60.51	60.16	60.30	3.211E+04	2.607E+03	12.31
4	60.85	61.25	61.11	60.78	60.67	61.87	61.09	3.107E+04	2.396E+03	12.97

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.13	42.58	46.72	47.50	47.58	44.14	47.54

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	55.88	56.40	56.13	55.80	55.74	56.06	56.00	1.601E+04	1.924E+03	8.32
2	56.21	56.29	56.59	56.26	56.27	56.51	56.35	1.600E+04	1.876E+03	8.53
3	56.62	56.67	56.67	56.97	56.76	56.58	56.71	1.623E+04	1.857E+03	8.74
4	57.08	57.39	57.14	57.10	57.04	57.76	57.25	1.570E+04	1.718E+03	9.14

Date Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.10	42.56	46.71	47.50	47.57	44.12	47.53

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	55.87	56.38	56.12	55.81	55.72	56.06	55.99	1.602E+04	1.925E+03	8.32	
2	56.19	56.29	56.57	56.24	56.24	56.49	56.34	1.600E+04	1.878E+03	8.52	
3	56.59	56.66	56.66	56.93	56.75	56.56	56.69	1.624E+04	1.859E+03	8.73	
4	57.06	57.39	57.12	57.08	57.02	57.74	57.23	1.571E+04	1.720E+03	9.13	

Date Set Number = 11

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.79	42.33	46.72	47.50	47.56	43.94	47.53

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	53.99	54.33	54.13	53.93	53.82	54.09	54.05	1.057E+04	1.649E+03	6.41	
2	54.36	54.39	54.66	54.47	54.47	54.64	54.50	1.057E+04	1.574E+03	6.71	
3	54.82	54.89	54.92	55.16	54.97	54.79	54.92	1.074E+04	1.536E+03	6.99	
4	55.28	55.62	55.32	55.38	55.35	55.88	55.47	1.038E+04	1.403E+03	7.40	

Date Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.73	42.30	46.69	47.49	47.53	43.91	47.51

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	53.94	54.30	54.13	53.89	53.83	54.06	54.02	1.055E+04	1.648E+03	6.40	
2	54.36	54.39	54.65	54.47	54.47	54.64	54.50	1.055E+04	1.567E+03	6.74	
3	54.80	54.89	54.90	55.12	54.93	54.77	54.90	1.072E+04	1.532E+03	7.00	
4	55.25	55.59	55.30	55.35	55.32	55.85	55.44	1.037E+04	1.402E+03	7.29	

Date Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.56	42.09	46.76	47.56	47.60	43.80	47.59

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	52.78	52.12	52.94	52.74	52.75	52.93	52.87	7.441E+03	1.434E+03	5.19	
2	53.17	53.24	53.45	53.31	53.34	53.43	53.32	7.449E+03	1.355E+03	5.50	
3	53.72	53.82	53.85	53.98	53.86	53.71	53.82	7.578E+03	1.295E+03	5.85	
4	54.21	54.52	54.27	54.35	54.33	54.71	54.40	7.324E+03	1.166E+03	6.28	

Date Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.54	42.05	46.76	47.59	47.61	43.79	47.60

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	52.78	53.10	52.94	52.73	52.74	52.94	52.87	7.449E+03	1.438E+03	5.18	
2	53.19	53.25	53.45	53.32	53.34	53.43	53.33	7.457E+03	1.358E+03	5.49	
3	53.71	53.82	53.86	53.96	53.84	53.72	53.82	7.584E+03	1.299E+03	5.84	
4	54.21	54.51	54.26	54.34	54.33	54.70	54.39	7.326E+03	1.169E+03	6.27	

Data Set Number = 15

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
42.25	41.76	46.67	47.49	47.49	43.56	47.49

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.36	51.71	51.52	51.31	51.47	51.62	51.50	4.648E+03	1.183E+03	3.93
2	51.75	51.81	51.98	51.88	51.96	51.97	51.89	4.659E+03	1.115E+03	4.18
3	52.27	52.41	52.40	52.48	52.41	52.30	52.37	4.748E+03	1.051E+03	4.52
4	53.09	53.36	53.13	53.19	53.20	53.47	53.24	4.586E+03	8.755E+02	5.24

Data Set Number = 16

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
42.21	41.71	46.64	47.47	47.48	43.52	47.48

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.34	51.68	51.53	51.31	51.51	51.57	51.49	4.651E+03	1.182E+03	3.94
2	51.72	51.78	51.97	51.87	51.95	51.97	51.88	4.664E+03	1.116E+03	4.18
3	52.26	52.40	52.38	52.46	52.41	52.28	52.36	4.750E+03	1.050E+03	4.52
4	53.07	53.34	53.11	53.15	53.16	53.47	53.22	4.587E+03	8.768E+02	5.23

Data Set Number = 17

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
42.06	41.55	46.74	47.51	47.52	43.45	47.52

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.09	50.33	50.24	50.06	50.23	50.27	50.20	2.538E+03	9.701E+02	2.62
2	50.49	50.51	50.67	50.63	50.64	50.64	50.60	2.552E+03	8.900E+02	2.87
3	50.95	51.11	51.11	51.07	51.12	51.06	51.07	2.606E+03	8.157E+02	3.19
4	52.36	52.52	52.39	52.36	52.38	52.61	52.44	2.512E+03	5.684E+02	4.42

Data Set Number = 18

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
42.02	41.55	46.74	47.50	47.51	43.44	47.51

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	50.05	50.31	50.20	50.04	50.20	50.24	50.17	2.532E+03	9.743E+02	2.60
2	50.45	50.50	50.64	50.62	50.62	50.62	50.57	2.545E+03	8.915E+02	2.85
3	50.92	51.08	51.09	51.06	51.10	51.02	51.04	2.600E+03	8.176E+02	3.18
4	52.33	52.50	52.36	52.36	52.37	52.58	52.42	2.509E+03	5.688E+02	4.41

Data Set Number = 19

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
41.82	41.57	46.81	47.51	47.47	43.40	47.49

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	49.05	49.19	49.11	49.05	49.10	49.15	49.11	1.200E+03	7.693E+02	1.56
2	49.51	49.52	49.53	49.52	49.47	49.50	49.51	1.211E+03	6.671E+02	1.82
3	50.03	50.10	50.17	50.10	50.13	50.15	50.11	1.238E+03	5.438E+02	2.28
4	51.62	51.48	51.64	51.52	51.53	51.59	51.56	1.194E+03	3.331E+02	3.58

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
41.88	41.50	46.84	47.52	47.51	43.41	47.52

Tube #	Wall	Temperatures (Deg C)				Tnave	Odp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	49.10	49.24	49.16	49.09	49.17	49.19	49.16	1.195E+03	7.550E+02	1.58
2	49.56	49.59	49.59	49.60	49.55	49.58	49.58	1.205E+03	6.485E+02	1.86
3	50.09	50.18	50.23	50.16	50.19	50.22	50.18	1.235E+03	5.341E+02	2.31
4	51.62	51.48	51.62	51.51	51.52	51.57	51.55	1.190E+03	3.359E+02	3.54

NOTE: 20 X-Y pairs were stored in plot data file PDSMD20

Dist number = 06

File name: ISMC21

This data set taken on : 01:25:08:21:18

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.84	34.20	46.49	47.47	47.42	38.18	47.45

Tube #	Wall	Temperatures (Deg C)				Tnave	Odp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	50.85	50.93	50.95	50.87	50.87	50.85	50.89	1.443E+03	4.266E+02	3.38
2	53.47	53.47	53.24	53.45	52.61	52.77	53.17	1.454E+03	2.634E+02	5.52
3	53.46	54.40	54.45	53.56	54.43	54.45	54.12	1.488E+03	2.351E+02	6.33
4	54.58	53.58	54.58	54.61	54.64	53.82	54.30	1.434E+03	2.254E+02	6.36
5	53.83	53.99	54.67	54.58	54.66	54.72	54.41	1.454E+03	2.300E+02	6.32

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.82	34.24	46.49	47.43	47.43	38.18	47.43

Tube #	Wall	Temperatures (Deg C)				Tnave	Odp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	51.08	50.92	51.23	51.10	51.15	50.85	51.05	1.429E+03	4.014E+02	3.56
2	53.49	53.49	53.41	53.64	52.70	52.88	53.27	1.440E+03	2.557E+02	5.63
3	53.59	54.45	54.41	53.71	54.45	54.39	54.16	1.473E+03	2.308E+02	6.28
4	54.55	53.70	54.58	54.52	54.54	53.92	54.30	1.419E+03	2.224E+02	6.38
5	54.00	54.13	54.68	54.52	54.61	54.72	54.44	1.440E+03	2.260E+02	6.37

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.26	34.72	46.78	47.65	47.29	38.36	47.47

Tube #	Wall	Temperatures (Deg C)				Tnave	Odp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	53.27	54.55	54.43	53.30	54.26	54.38	54.03	3.125E+03	4.816E+02	6.49
2	55.22	56.11	57.46	57.40	56.65	56.89	56.79	3.136E+03	3.446E+02	9.10
3	58.25	58.95	57.45	58.38	59.05	57.51	58.26	3.204E+03	3.071E+02	10.43
4	59.68	58.71	59.66	58.38	58.39	59.05	58.98	3.088E+03	2.806E+02	11.01
5	59.61	59.80	60.40	58.97	59.19	60.49	59.74	3.132E+03	2.694E+02	11.62

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	34.34	34.67	46.03	47.57	47.52	38.35	47.55			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.38	54.46	54.46	53.41	54.30	54.31	54.05	3.130E+03	4.864E+02	6.44
2	56.20	56.16	57.45	57.48	56.57	56.85	56.79	3.142E+03	3.483E+02	9.02
3	58.33	58.97	57.30	58.45	59.01	57.34	58.23	3.207E+03	3.105E+02	10.33
4	59.61	58.75	59.61	58.25	58.27	59.10	58.93	3.092E+03	2.841E+02	10.88
5	59.75	59.96	60.34	58.77	59.00	60.45	59.71	3.137E+03	2.724E+02	11.52

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	34.51	34.82	46.62	47.61	47.53	38.65	47.57			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.97	53.04	52.49	52.94	52.35	52.93	52.79	5.551E+03	1.082E+03	5.13
2	56.18	56.20	54.56	54.23	56.53	56.42	55.69	5.559E+03	7.047E+02	7.89
3	57.63	55.70	57.77	57.71	55.67	57.74	57.03	5.672E+03	6.240E+02	9.09
4	56.99	58.32	57.10	58.14	58.16	58.37	57.85	5.468E+03	5.603E+02	9.76
5	60.02	60.20	59.77	59.02	59.23	60.01	59.71	5.549E+03	4.836E+02	11.47

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	34.49	34.81	46.61	47.60	47.50	38.64	47.55			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.85	53.13	52.47	52.87	52.36	53.03	52.78	5.570E+03	1.082E+03	5.15
2	56.18	56.20	54.63	54.27	56.69	56.56	55.75	5.581E+03	6.999E+02	7.97
3	57.51	55.65	57.68	57.57	55.62	57.64	56.95	5.687E+03	6.302E+02	9.02
4	56.87	58.07	56.98	58.02	58.03	58.09	57.68	5.485E+03	5.706E+02	9.61
5	59.59	59.77	59.50	58.82	59.02	59.76	59.41	5.568E+03	4.971E+02	11.20

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	34.14	34.88	46.51	47.49	47.44	38.51	47.47			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.38	53.60	52.99	53.31	52.82	53.44	53.26	7.100E+03	1.246E+03	5.70
2	56.97	56.94	55.57	54.81	58.37	58.20	56.81	7.103E+03	7.800E+02	9.11
3	59.03	56.19	56.74	59.15	56.15	58.69	57.99	7.240E+03	7.136E+02	10.14
4	57.81	59.79	57.92	59.42	59.42	59.88	59.04	6.986E+03	6.321E+02	11.05
5	61.30	61.57	61.05	60.54	60.76	61.35	61.09	7.086E+03	5.468E+02	12.96

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	33.89	34.91	46.49	47.46	47.41	38.43	47.43			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.35	53.48	52.94	53.29	52.80	53.34	53.20	7.142E+03	1.259E+03	5.67
2	56.80	56.69	55.42	54.74	58.09	57.94	56.61	7.149E+03	7.994E+02	8.94
3	59.08	56.18	58.78	59.15	56.16	58.74	58.01	7.280E+03	7.138E+02	10.20
4	57.84	59.93	57.96	59.51	59.52	59.93	59.11	7.022E+03	6.293E+02	11.16
5	61.37	61.54	61.05	60.65	60.87	61.37	61.14	7.128E+03	5.466E+02	13.04

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.72	34.96	46.39	47.42	47.39	38.36	47.41

Tube #	Wall Temperatures (Deg C)						Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6 (Deg C)				
1	53.84	54.46	53.42	53.77	53.20	54.29	53.83	8.826E+03	1.396E+03	6.32
2	56.21	56.27	56.39	54.96	60.14	59.89	57.31	8.822E+03	9.134E+02	9.66
3	60.35	55.74	57.64	60.43	55.76	57.54	57.91	8.982E+03	8.881E+02	10.11
4	57.62	60.93	57.74	59.14	59.12	60.93	59.25	8.670E+03	7.667E+02	11.31
5	62.24	62.49	61.64	61.40	61.63	62.02	61.90	8.794E+03	6.364E+02	13.82

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
33.77	34.97	46.40	47.40	47.41	38.38	47.40

Tube #	Wall Temperatures (Deg C)						Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6 (Deg C)				
1	53.80	54.42	53.42	53.71	53.20	54.24	53.80	8.794E+03	1.398E+03	6.29
2	56.13	56.19	56.36	54.97	60.09	59.86	57.27	8.794E+03	9.143E+02	9.62
3	60.32	55.73	57.59	60.40	55.75	57.47	57.88	8.949E+03	8.876E+02	10.08
4	57.60	60.86	57.73	59.10	59.09	60.88	59.21	8.639E+03	7.663E+02	11.27
5	62.15	62.40	61.60	61.35	61.60	61.99	61.85	8.768E+03	6.369E+02	13.77

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.44	34.46	46.36	47.43	47.40	38.43	47.42

Tube #	Wall Temperatures (Deg C)						Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6 (Deg C)				
1	54.69	56.24	54.95	54.63	54.67	56.03	55.20	1.263E+04	1.648E+03	7.66
2	55.49	55.57	57.47	55.96	62.07	61.29	57.97	1.262E+04	1.226E+03	10.29
3	62.83	56.67	56.51	62.82	56.72	56.25	58.65	1.283E+04	1.186E+03	10.82
4	58.76	64.46	58.91	59.38	59.28	64.28	60.84	1.240E+04	9.628E+02	12.87
5	65.62	65.82	63.33	64.67	64.91	63.97	64.72	1.257E+04	7.571E+02	16.61

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
34.55	34.51	46.36	47.44	47.41	38.47	47.42

Tube #	Wall Temperatures (Deg C)						Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6 (Deg C)				
1	54.75	56.22	54.97	54.69	54.71	56.00	55.23	1.267E+04	1.649E+03	7.68
2	55.47	55.60	57.48	55.98	62.10	61.28	57.98	1.266E+04	1.229E+03	10.30
3	62.70	56.62	56.51	62.78	56.67	56.24	58.59	1.287E+04	1.197E+03	10.75
4	58.70	64.22	58.83	59.34	59.22	64.04	60.72	1.242E+04	9.744E+02	12.75
5	65.52	65.72	63.24	64.60	64.86	63.88	64.64	1.261E+04	7.633E+02	16.52

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.28	35.65	46.47	47.40	47.50	39.13	47.45

Tube #	Wall Temperatures (Deg C)						Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6 (Deg C)				
1	56.87	57.61	57.72	56.82	57.33	57.27	57.27	1.806E+04	1.869E+03	9.67
2	57.40	57.56	57.95	57.81	57.62	57.67	57.67	1.804E+04	1.818E+03	9.92
3	57.87	58.04	59.20	56.34	58.17	57.88	58.09	1.832E+04	1.797E+03	10.19
4	59.42	60.27	59.55	59.29	59.11	60.47	59.68	1.771E+04	1.520E+03	11.65
5	60.80	61.26	60.25	59.99	60.44	61.08	60.64	1.796E+04	1.442E+03	12.46

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.40	35.80	46.49	47.42	47.51	39.23	47.46

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	56.91	57.62	57.73	56.82	57.33	57.29	57.28	1.800E+04	1.862E+03	9.67
2	57.40	57.57	57.96	57.83	57.63	57.68	57.68	1.797E+04	1.811E+03	9.92
3	57.87	58.05	58.17	58.36	58.21	57.85	58.08	1.826E+04	1.793E+03	10.18
4	59.43	60.25	59.56	59.26	59.08	60.48	59.68	1.765E+04	1.517E+03	11.63
5	60.75	61.22	60.23	59.96	60.42	61.08	60.61	1.790E+04	1.441E+03	12.42

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.28	37.04	46.58	47.51	47.59	39.97	47.55

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	61.58	62.56	61.89	61.40	61.43	62.17	61.84	3.403E+04	2.421E+03	14.06
2	61.99	62.30	62.45	62.02	62.21	61.99	62.16	3.394E+04	2.385E+03	14.23
3	62.01	62.20	62.52	62.58	62.29	61.99	62.26	3.445E+04	2.427E+03	14.19
4	64.12	64.81	64.56	63.64	63.48	65.35	64.33	3.332E+04	2.068E+03	16.12
5	65.04	65.16	64.02	63.74	64.99	65.56	64.75	3.379E+04	2.061E+03	16.39

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.34	37.04	46.58	47.50	47.58	39.99	47.54

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	61.55	62.53	61.83	61.37	61.37	62.15	61.80	3.407E+04	2.429E+03	14.03
2	61.96	62.26	62.43	61.98	62.19	61.97	62.13	3.399E+04	2.392E+03	14.21
3	61.99	62.16	62.48	62.57	62.25	61.98	62.24	3.448E+04	2.433E+03	14.17
4	64.11	64.77	64.57	63.63	63.48	65.33	64.31	3.335E+04	2.070E+03	16.11
5	65.03	65.13	64.03	63.75	65.01	65.55	64.75	3.382E+04	2.062E+03	16.40

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.41	36.34	46.60	47.47	47.54	39.79	47.51

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	65.12	67.02	65.12	64.97	64.78	66.41	65.57	5.592E+04	3.156E+03	17.72
2	65.48	65.79	65.85	65.36	65.70	65.33	65.58	5.577E+04	3.171E+03	17.59
3	65.52	65.52	65.67	65.83	65.73	65.28	65.59	5.654E+04	3.241E+03	17.45
4	67.31	67.87	68.14	65.74	66.49	68.85	67.57	5.472E+04	2.837E+03	19.29
5	68.60	67.78	67.22	66.57	66.61	68.57	67.89	5.545E+04	2.849E+03	19.47

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.52	36.44	46.59	47.47	47.54	39.85	47.50

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	65.06	66.99	65.08	64.96	64.81	66.38	65.55	5.590E+04	3.159E+03	17.69
2	65.51	65.79	65.82	65.33	65.68	65.35	65.58	5.576E+04	3.170E+03	17.59
3	65.49	65.52	65.65	65.82	65.73	65.26	65.58	5.653E+04	3.242E+03	17.44
4	67.30	67.87	68.12	66.72	66.47	68.85	67.55	5.471E+04	2.838E+03	19.28
5	68.62	67.79	67.23	65.59	68.62	68.57	67.90	5.543E+04	2.846E+03	19.48

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.48	36.45	46.62	47.47	47.55	39.85	47.51

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	67.18	69.85	67.21	67.11	66.94	69.11	67.90	7.614E+04	3.818E+03	19.94
2	67.54	67.81	67.82	67.33	67.74	67.29	67.59	7.597E+04	3.899E+03	19.48
3	67.78	67.52	67.72	67.96	67.86	67.34	67.70	7.700E+04	3.960E+03	19.44
4	69.45	70.34	70.79	68.74	68.41	71.50	69.87	7.451E+04	3.467E+03	21.49
5	71.91	70.62	69.94	68.89	71.50	71.26	70.69	7.549E+04	3.407E+03	22.15

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.55	36.54	46.63	47.48	47.55	39.90	47.52

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	67.15	69.82	67.20	67.08	66.83	69.08	67.86	7.612E+04	3.827E+03	19.89
2	67.55	67.81	67.81	67.33	67.75	67.31	67.59	7.595E+04	3.898E+03	19.48
3	67.79	67.52	67.72	67.95	67.86	67.34	67.70	7.698E+04	3.960E+03	19.44
4	69.44	70.35	70.78	68.75	68.42	71.53	69.88	7.451E+04	3.468E+03	21.49
5	71.93	70.64	69.96	68.90	71.52	71.24	70.70	7.551E+04	3.408E+03	22.16

Data Set Number = 21

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.49	36.48	46.68	47.51	47.61	39.88	47.55

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	68.14	71.26	69.26	68.09	67.95	70.45	69.03	8.713E+04	4.158E+03	20.96
2	68.59	68.84	68.78	68.24	68.76	68.22	68.57	8.692E+04	4.270E+03	20.36
3	68.86	68.54	68.70	68.95	68.84	68.26	68.69	8.808E+04	4.333E+03	20.33
4	70.39	71.56	72.03	69.70	69.35	72.81	70.97	8.525E+04	3.792E+03	22.48
5	73.55	72.07	71.33	70.05	73.00	72.65	72.11	8.636E+04	3.680E+03	23.47

Data Set Number = 22

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.51	36.50	46.69	47.53	47.61	39.90	47.57

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	68.16	71.28	69.31	68.12	67.99	70.48	69.05	8.705E+04	4.148E+03	20.98
2	68.58	68.85	68.80	68.26	68.78	68.24	68.59	8.683E+04	4.263E+03	20.37
3	68.87	68.52	68.71	68.97	68.83	68.26	68.69	8.800E+04	4.330E+03	20.32
4	70.40	71.55	72.02	69.73	69.35	72.80	70.97	8.517E+04	3.789E+03	22.48
5	73.57	72.10	71.33	70.06	72.99	72.65	72.12	8.629E+04	3.676E+03	23.47

NOTE 22 X-Y pairs were stored in plot data file PISM021

Dist number = 06

File name ISM022

This data set taken on 01-30-07-28-00

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.66	39.48	46.59	47.47	47.38	41.91	47.42

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	49.84	50.27	50.24	49.88	50.16	50.23	50.10	1.190E+03	4.546E+02	2.62
2	52.26	52.25	52.41	52.54	51.91	52.03	52.24	1.200E+03	2.605E+02	4.61
3	52.55	53.24	53.10	52.62	53.26	53.12	52.98	1.230E+03	2.362E+02	5.21
4	53.39	52.58	53.34	53.29	53.30	52.74	53.11	1.185E+03	2.282E+02	5.19
5	52.85	52.95	53.61	53.56	53.62	53.63	53.37	1.201E+03	2.263E+02	5.31

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.62	39.26	46.60	47.49	47.41	41.83	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	49.97	50.29	50.34	50.00	50.29	50.24	50.19	1.186E+03	4.435E+02	2.68
2	52.39	52.38	52.54	52.67	52.02	52.16	52.36	1.198E+03	2.547E+02	4.70
3	52.67	53.29	53.08	52.73	53.31	53.10	53.03	1.225E+03	2.343E+02	5.23
4	53.47	52.68	53.44	53.30	53.31	52.87	53.18	1.180E+03	2.254E+02	5.23
5	52.93	53.06	53.66	53.59	53.64	53.71	53.43	1.198E+03	2.243E+02	5.34

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.11	38.91	46.52	47.50	47.39	41.51	47.45

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.38	50.77	51.31	51.41	51.17	50.75	51.13	2.495E+03	6.898E+02	3.62
2	53.61	53.57	51.87	52.61	51.89	51.84	52.57	2.508E+03	5.112E+02	4.91
3	52.98	53.76	54.98	53.07	53.76	54.97	53.92	2.561E+03	4.189E+02	6.12
4	54.67	54.57	54.67	55.27	55.29	54.65	54.85	2.468E+03	3.573E+02	6.91
5	56.50	56.66	56.96	56.27	56.41	57.07	56.65	2.505E+03	2.928E+02	8.55

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.12	38.86	46.53	47.50	47.42	41.50	47.46

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.43	50.73	51.19	51.51	51.10	50.73	51.12	2.490E+03	6.947E+02	3.58
2	53.62	53.60	51.82	52.49	51.82	51.75	52.52	2.502E+03	5.168E+02	4.84
3	52.95	53.83	54.94	53.03	53.81	54.93	53.92	2.555E+03	4.191E+02	6.10
4	54.69	54.54	54.69	55.29	55.32	54.58	54.85	2.463E+03	3.576E+02	6.89
5	56.55	56.69	56.96	56.21	56.37	57.06	56.64	2.499E+03	2.929E+02	8.53

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.85	38.73	46.51	47.50	47.53	41.36	47.51

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.20	52.14	52.58	53.26	52.45	52.08	52.62	4.582E+03	9.114E+02	5.03
2	55.51	55.44	53.35	53.96	53.86	53.68	54.30	4.593E+03	6.996E+02	6.57
3	54.47	55.21	57.15	54.61	55.23	57.15	55.65	4.684E+03	6.027E+02	7.77
4	56.02	56.29	56.06	57.19	57.22	56.37	56.52	4.516E+03	5.313E+02	8.50
5	58.60	59.03	59.32	58.34	58.55	59.49	58.92	4.583E+03	4.262E+02	10.75

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.88	38.76	46.51	47.53	47.57	41.38	47.55			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.31	52.16	52.68	53.34	52.48	52.10	52.68	4.583E+03	9.081E+02	5.05
2	55.45	55.38	53.31	53.91	53.84	53.65	54.26	4.594E+03	7.082E+02	6.49
3	54.44	55.26	57.15	54.61	55.19	57.12	55.63	4.685E+03	6.078E+02	7.71
4	56.01	56.35	56.06	57.15	57.17	56.42	56.53	4.522E+03	5.342E+02	8.46
5	58.78	59.03	59.25	58.38	58.59	59.45	58.91	4.585E+03	4.282E+02	10.71

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.75	38.65	46.45	47.46	47.49	41.28	47.48			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.77	53.49	53.37	53.73	53.20	53.38	53.49	7.531E+03	1.272E+03	5.92
2	57.64	57.58	54.45	55.09	54.26	54.27	55.55	7.534E+03	9.617E+02	7.83
3	54.79	56.43	59.31	55.07	56.34	59.31	56.87	7.674E+03	8.513E+02	9.01
4	57.17	56.25	57.25	59.19	59.19	56.44	57.58	7.412E+03	7.737E+02	9.58
5	60.58	60.92	61.33	60.50	60.77	61.61	60.95	7.515E+03	5.869E+02	12.81

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.75	38.63	46.43	47.44	47.48	41.27	47.46			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.76	53.52	53.39	53.75	53.21	53.40	53.50	7.448E+03	1.252E+03	5.95
2	57.64	57.61	54.42	55.06	54.22	54.25	55.53	7.465E+03	9.528E+02	7.83
3	54.82	56.39	59.31	55.11	56.32	59.26	56.87	7.634E+03	8.460E+02	9.02
4	57.11	56.28	57.19	59.21	59.21	56.46	57.57	7.377E+03	7.693E+02	9.59
5	60.64	60.99	61.41	60.59	60.87	61.67	61.03	7.484E+03	5.801E+02	12.90

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.81	38.48	46.42	47.35	47.51	41.24	47.43			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.19	55.11	54.21	54.17	53.99	54.97	54.44	1.063E+04	1.541E+03	6.90
2	54.84	54.95	55.16	54.86	55.49	55.50	55.13	1.063E+04	1.428E+03	7.45
3	55.68	55.54	55.92	56.20	55.56	55.68	55.80	1.081E+04	1.357E+03	7.96
4	56.62	57.21	56.68	57.64	57.58	57.36	57.18	1.045E+04	1.134E+03	9.21
5	61.78	62.05	62.18	62.37	62.69	62.62	62.28	1.060E+04	7.482E+02	14.16

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	38.83	38.47	46.41	47.35	47.50	41.24	47.42			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.08	55.05	54.17	54.04	53.93	54.91	54.36	1.059E+04	1.551E+03	6.83
2	54.79	54.85	55.15	54.82	55.47	55.51	55.10	1.059E+04	1.427E+03	7.42
3	55.88	55.51	55.82	56.20	55.53	55.58	55.75	1.077E+04	1.358E+03	7.93
4	56.62	57.26	56.68	57.67	57.61	57.38	57.20	1.041E+04	1.127E+03	9.24
5	61.87	62.16	62.28	62.43	62.74	62.64	62.34	1.055E+04	7.418E+02	14.23

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.88	38.49	46.47	47.43	47.51	41.28	47.47

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	56.15	57.47	56.62	56.08	56.27	57.22	56.63	1.601E+04	1.774E+03	9.02
2	56.83	57.00	57.56	57.22	57.53	57.65	57.30	1.598E+04	1.675E+03	9.54
3	57.65	57.59	57.58	58.18	57.68	57.28	57.66	1.624E+04	1.664E+03	9.76
4	58.43	59.10	58.48	58.31	58.14	59.27	58.62	1.570E+04	1.484E+03	10.58
5	60.16	60.61	59.77	59.09	59.54	60.53	59.95	1.592E+04	1.354E+03	11.76

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.93	38.48	46.47	47.44	47.53	41.29	47.48

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	56.19	57.45	56.59	56.13	56.23	57.19	56.63	1.600E+04	1.777E+03	9.01
2	56.85	56.98	57.51	57.15	57.51	57.61	57.27	1.599E+04	1.683E+03	9.50
3	57.62	57.57	57.57	58.08	57.71	57.28	57.64	1.624E+04	1.670E+03	9.73
4	58.43	59.06	58.51	58.34	58.18	59.26	58.63	1.570E+04	1.484E+03	10.58
5	60.11	60.59	59.79	59.11	59.55	60.54	59.95	1.593E+04	1.355E+03	11.75

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.11	37.71	46.48	47.46	47.52	40.77	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	61.19	62.24	61.35	61.03	60.97	61.87	61.44	3.101E+04	2.259E+03	13.73
2	61.56	61.88	62.13	61.66	61.97	61.88	61.85	3.095E+04	2.211E+03	13.99
3	61.70	61.75	61.99	62.32	61.82	61.46	61.84	3.139E+04	2.268E+03	13.84
4	62.87	63.88	63.26	62.81	62.63	64.19	63.27	3.035E+04	2.006E+03	15.14
5	64.74	65.10	64.05	63.29	64.41	65.42	64.50	3.079E+04	1.899E+03	16.22

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.14	37.75	46.49	47.45	47.50	40.80	47.48

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	61.18	62.22	61.34	61.02	60.98	61.83	61.43	3.105E+04	2.261E+03	13.73
2	61.52	61.79	62.16	61.63	61.94	61.84	61.81	3.099E+04	2.217E+03	13.98
3	61.67	61.72	61.98	62.31	61.80	61.44	61.82	3.144E+04	2.272E+03	13.84
4	62.81	63.86	63.22	62.78	62.60	64.13	63.23	3.041E+04	2.012E+03	15.11
5	64.72	65.04	64.02	63.26	64.39	65.38	64.47	3.085E+04	1.904E+03	16.20

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.86	38.62	46.59	47.47	47.56	41.36	47.51

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	64.94	66.81	65.08	64.86	64.75	66.29	65.45	5.211E+04	2.959E+03	17.61
2	65.23	65.50	65.52	65.08	65.41	65.13	65.31	5.198E+04	3.000E+03	17.32
3	65.17	65.03	65.12	65.59	65.20	64.78	65.15	5.269E+04	3.097E+03	17.02
4	66.19	66.81	66.99	65.87	65.65	67.66	66.53	5.099E+04	2.792E+03	18.26
5	68.33	67.67	67.14	66.49	68.35	68.46	67.74	5.170E+04	2.675E+03	19.32

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	38.95	38.80	46.63	47.49	47.57	41.46	47.53			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	64.94	66.79	65.07	64.85	64.74	66.28	65.45	5.221E+04	2.969E+03	17.59
2	65.21	65.48	65.52	65.08	65.42	65.14	65.31	5.210E+04	3.010E+03	17.31
3	65.15	65.02	65.14	65.57	65.20	64.81	65.15	5.279E+04	3.106E+03	17.00
4	66.19	66.79	66.97	65.86	65.63	67.66	66.52	5.108E+04	2.801E+03	18.23
5	68.35	67.67	67.14	66.51	68.38	68.46	67.75	5.177E+04	2.680E+03	19.32

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	38.59	38.55	46.59	47.40	47.52	41.24	47.46			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	67.18	69.90	67.37	67.14	66.96	69.20	67.96	7.377E+04	3.678E+03	20.06
2	67.46	67.65	67.61	67.13	67.45	67.14	67.41	7.363E+04	3.803E+03	19.36
3	67.47	67.09	67.27	67.65	67.43	66.98	67.31	7.460E+04	3.901E+03	19.12
4	68.42	69.43	69.73	68.04	67.73	70.56	68.98	7.218E+04	3.493E+03	20.66
5	71.90	70.67	69.94	68.94	71.48	71.21	70.69	7.317E+04	3.293E+03	22.22

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	38.64	38.58	46.58	47.41	47.53	41.27	47.47			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	67.14	69.82	67.33	67.09	66.84	69.15	67.90	7.364E+04	3.684E+03	19.99
2	67.43	67.63	67.59	67.13	67.46	67.14	67.40	7.346E+04	3.797E+03	19.35
3	67.45	67.06	67.25	67.62	67.42	66.96	67.29	7.444E+04	3.899E+03	19.09
4	68.38	69.38	69.70	68.01	67.69	70.51	68.95	7.203E+04	3.494E+03	20.61
5	71.90	70.67	69.93	68.94	71.46	71.20	70.68	7.301E+04	3.288E+03	22.20

Data Set Number = 19

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	38.26	38.33	46.73	47.48	47.64	41.14	47.56			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	68.64	72.05	68.94	68.64	68.50	71.28	69.68	9.141E+04	4.235E+03	21.59
2	68.99	69.17	69.08	68.51	68.93	68.53	68.87	9.121E+04	4.420E+03	20.64
3	69.12	68.66	68.75	69.15	69.03	68.41	68.86	9.243E+04	4.515E+03	20.47
4	69.95	71.37	71.73	69.55	69.17	72.63	70.73	8.944E+04	4.075E+03	22.22
5	74.39	72.85	72.02	70.67	73.75	73.39	72.85	9.064E+04	3.748E+03	24.18

Data Set Number = 20

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	36.39	38.37	46.72	47.47	47.63	41.16	47.55			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	68.63	72.04	68.90	68.61	68.42	71.26	69.64	9.127E+04	4.233E+03	21.56
2	68.96	69.14	69.07	68.51	68.97	68.53	68.86	9.107E+04	4.412E+03	20.64
3	69.08	68.62	68.75	69.11	69.00	68.41	68.83	9.227E+04	4.511E+03	20.46
4	69.91	71.31	71.68	69.52	69.14	72.58	70.69	8.930E+04	4.075E+03	22.19
5	74.38	72.85	72.01	70.66	73.74	73.38	72.84	9.053E+04	3.743E+03	24.18

NOTE 20 X-Y pairs were stored in plot data file P15MB22

Disk number = 06  
 File name: ISMA23  
 This data set taken on : 01:31:07:22:18

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.99	39.80	46.78	47.53	47.57	42.19	47.55

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.10	49.38	49.17	49.10	49.18	49.35	49.21	1.002E+03	6.260E+02	1.60
2	49.64	49.65	49.75	49.70	49.84	49.89	49.75	1.013E+03	5.092E+02	1.99
3	50.32	50.31	50.27	50.38	50.34	50.29	50.32	1.036E+03	4.266E+02	2.42
4	51.07	50.96	51.06	50.91	50.94	51.04	51.00	9.997E+02	3.385E+02	2.95
5	51.72	51.79	52.01	51.77	51.83	52.04	51.86	1.013E+03	2.758E+02	3.67

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.97	39.78	46.77	47.56	47.50	42.17	47.53

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.07	49.34	49.18	49.08	49.15	49.33	49.19	1.003E+03	6.279E+02	1.60
2	49.56	49.57	49.67	49.66	49.79	49.84	49.68	1.013E+03	5.213E+02	1.94
3	50.25	50.21	50.21	50.32	50.23	50.22	50.24	1.039E+03	4.406E+02	2.36
4	50.93	50.84	50.94	50.85	50.87	50.92	50.89	1.003E+03	3.499E+02	2.87
5	51.68	51.77	51.94	51.69	51.74	51.99	51.80	1.014E+03	2.794E+02	3.63

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.76	39.43	46.66	47.53	47.42	41.95	47.48

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.95	50.30	49.93	49.94	49.91	50.29	50.05	1.959E+03	7.831E+02	2.51
2	50.34	50.37	50.50	50.34	50.95	50.92	50.57	1.982E+03	6.873E+02	2.88
3	51.33	50.89	51.00	51.38	50.92	50.95	51.08	2.008E+03	6.237E+02	3.25
4	51.71	52.10	51.72	51.64	51.65	52.10	51.82	1.957E+03	5.084E+02	3.85
5	53.80	53.93	53.77	53.17	53.26	53.86	53.63	1.981E+03	3.590E+02	5.52

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.73	39.38	46.64	47.50	47.39	41.92	47.44

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	49.91	50.32	49.88	49.95	49.87	50.30	50.04	1.976E+03	7.812E+02	2.53
2	50.32	50.35	50.43	50.31	50.86	50.80	50.51	1.990E+03	6.959E+02	2.86
3	51.23	50.89	50.91	51.31	50.90	50.85	51.01	2.033E+03	6.318E+02	3.22
4	51.73	52.09	51.73	51.64	51.64	52.09	51.82	1.963E+03	5.862E+02	3.88
5	53.89	54.01	53.92	53.35	53.44	54.00	53.77	1.989E+03	3.500E+02	5.68

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.30	38.96	46.56	47.47	47.40	41.60	47.43

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.65	51.96	51.50	51.63	51.43	51.91	51.68	3.996E+03	9.579E+02	4.17
2	52.08	52.15	51.99	51.83	52.57	52.48	52.18	4.011E+03	8.859E+02	4.53
3	52.94	52.43	52.81	53.06	52.46	52.69	52.73	4.091E+03	8.293E+02	4.93
4	53.18	54.02	53.23	53.24	53.24	53.98	53.48	3.950E+03	7.132E+02	5.54
5	56.52	56.73	56.39	55.51	55.65	56.57	56.23	4.004E+03	4.920E+02	8.14

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.22	38.97	46.55	47.51	47.41	41.58	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.68	52.04	51.52	51.68	51.47	52.03	51.74	3.999E+03	9.525E+02	4.20
2	52.08	52.17	51.99	51.83	52.53	52.43	52.17	4.013E+03	8.938E+02	4.49
3	52.08	52.42	52.82	53.00	52.45	52.68	52.71	4.090E+03	8.382E+02	4.88
4	53.17	53.93	53.22	53.26	53.26	53.87	53.45	3.953E+03	7.215E+02	5.48
5	56.38	56.53	56.32	55.51	55.67	56.52	56.16	4.006E+03	4.981E+02	8.04

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.05	38.87	46.62	47.57	47.53	41.51	47.55

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.08	53.99	53.22	53.02	53.09	53.96	53.39	6.797E+03	1.181E+03	5.76
2	53.81	53.91	53.89	53.65	54.70	54.53	54.08	6.807E+03	1.081E+03	6.30
3	54.63	54.17	54.60	54.85	54.19	54.39	54.47	6.926E+03	1.058E+03	6.55
4	54.94	56.52	54.99	54.88	54.87	56.37	55.43	6.695E+03	9.099E+02	7.36
5	59.24	59.45	58.50	57.42	57.54	58.82	58.50	6.790E+03	6.603E+02	10.28

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.07	38.84	46.63	47.57	47.55	41.51	47.56

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.05	53.97	53.20	53.01	53.08	53.94	53.38	6.804E+03	1.189E+03	5.72
2	53.82	53.93	53.90	53.64	54.71	54.54	54.09	6.813E+03	1.082E+03	6.29
3	54.62	54.15	54.61	54.84	54.16	54.41	54.46	6.936E+03	1.063E+03	6.52
4	54.91	56.49	54.97	54.88	54.87	56.34	55.41	6.703E+03	9.149E+02	7.33
5	59.24	59.44	58.30	57.13	57.24	58.64	58.33	6.795E+03	6.727E+02	10.10

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.90	38.71	46.51	47.42	47.53	41.37	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.35	55.53	54.64	54.32	54.35	55.48	54.78	1.005E+04	1.397E+03	7.20
2	54.76	54.87	55.39	55.10	56.13	55.98	55.37	1.005E+04	1.314E+03	7.65
3	56.15	55.50	55.36	55.45	55.54	55.19	55.70	1.022E+04	1.305E+03	7.83
4	56.11	56.25	55.17	55.76	55.74	56.02	56.67	9.884E+03	1.141E+03	8.66
5	60.94	61.09	58.23	56.70	56.94	58.86	58.79	1.002E+04	9.417E+02	10.64

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.91	38.66	46.52	47.44	47.54	41.36	47.49			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.37	55.50	54.67	54.34	54.47	55.44	54.80	1.005E+04	1.395E+03	7.20
2	54.79	54.90	55.42	55.12	56.16	56.01	55.40	1.004E+04	1.312E+03	7.66
3	56.11	55.53	55.40	56.44	55.57	55.24	55.71	1.021E+04	1.305E+03	7.83
4	56.13	58.14	56.19	55.76	55.74	57.95	56.65	9.875E+03	1.145E+03	8.62
5	60.83	61.00	58.23	56.70	56.94	58.84	58.76	1.001E+04	9.460E+02	10.58

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.85	38.99	46.49	47.42	47.54	41.44	47.48			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	56.13	57.12	56.54	56.09	56.17	56.90	56.49	1.426E+04	1.606E+03	8.88
2	56.61	56.77	57.11	56.89	57.70	57.58	57.11	1.425E+04	1.523E+03	9.36
3	57.61	57.28	57.22	57.98	57.38	57.04	57.42	1.447E+04	1.521E+03	9.52
4	57.73	59.80	57.82	57.62	57.54	59.58	58.35	1.400E+04	1.358E+03	10.31
5	61.92	61.97	59.22	58.60	58.85	59.93	60.08	1.420E+04	1.194E+03	11.89

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.85	38.94	46.51	47.42	47.54	41.43	47.48			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	56.11	57.06	56.55	56.09	56.16	56.86	56.47	1.425E+04	1.608E+03	8.86
2	56.64	56.79	57.13	56.93	57.66	57.55	57.12	1.424E+04	1.521E+03	9.36
3	57.60	57.26	57.22	57.98	57.38	57.02	57.41	1.446E+04	1.520E+03	9.51
4	57.74	59.76	57.81	57.62	57.54	59.55	58.34	1.399E+04	1.359E+03	10.30
5	61.92	61.94	59.21	58.59	58.82	59.90	60.06	1.419E+04	1.195E+03	11.88

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.11	37.66	46.50	47.44	47.51	40.76	47.48			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	61.13	61.89	61.38	60.96	60.92	61.44	61.29	2.985E+04	2.195E+03	13.60
2	61.18	61.40	61.68	61.19	61.40	61.36	61.37	2.979E+04	2.201E+03	13.54
3	61.13	61.22	61.42	61.77	61.32	60.98	61.31	3.019E+04	2.265E+03	13.33
4	62.06	62.73	62.43	61.95	61.89	63.16	62.37	2.921E+04	2.050E+03	14.25
5	64.31	64.67	63.76	62.93	64.01	65.09	64.13	2.962E+04	1.867E+03	15.86

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	38.15	37.72	46.49	47.44	47.51	40.79	47.48			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	61.09	61.86	61.32	60.92	60.87	61.41	61.24	2.983E+04	2.200E+03	13.56
2	61.15	61.38	61.65	61.17	61.37	61.35	61.34	2.978E+04	2.203E+03	13.51
3	61.10	61.20	61.40	61.75	61.30	60.98	61.29	3.019E+04	2.268E+03	13.31
4	62.05	62.69	62.42	61.93	61.85	63.17	62.35	2.922E+04	2.053E+03	14.24
5	64.29	64.66	63.75	62.93	64.02	65.08	64.12	2.964E+04	1.869E+03	15.86

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.41	38.36	46.53	47.45	47.53	41.10	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	64.71	66.51	64.91	64.58	64.54	65.91	65.19	4.943E+04	2.842E+03	17.39
2	64.79	65.08	65.18	64.66	65.04	64.76	64.92	4.931E+04	2.906E+03	16.97
3	64.66	64.49	64.53	65.09	64.69	64.25	64.62	4.997E+04	3.024E+03	16.53
4	65.57	66.12	66.39	65.37	65.18	66.90	65.92	4.838E+04	2.735E+03	17.69
5	67.88	67.31	66.75	66.03	67.89	68.10	67.33	4.906E+04	2.589E+03	18.95

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.50	38.45	46.52	47.46	47.52	41.16	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	64.64	66.45	64.88	64.55	64.49	65.86	65.14	4.927E+04	2.841E+03	17.34
2	64.75	65.00	65.14	64.63	65.00	64.71	64.87	4.915E+04	2.904E+03	16.93
3	64.62	64.45	64.49	65.05	64.65	64.22	64.58	4.979E+04	3.020E+03	16.49
4	65.53	66.09	66.35	65.33	65.14	66.86	65.88	4.801E+04	2.731E+03	17.66
5	67.86	67.29	66.70	66.00	67.86	68.06	67.30	4.887E+04	2.582E+03	18.92

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.53	38.49	46.63	47.48	47.56	41.22	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	67.64	70.59	67.86	67.57	67.41	69.85	68.49	7.909E+04	3.858E+03	20.50
2	67.87	68.01	68.03	67.51	67.90	67.57	67.81	7.889E+04	4.008E+03	19.69
3	67.90	67.45	67.60	68.01	67.86	67.21	67.69	7.988E+04	4.116E+03	19.41
4	68.81	69.95	70.24	68.36	68.05	71.12	69.42	7.733E+04	3.681E+03	21.01
5	72.70	71.41	70.57	69.39	72.09	71.88	71.34	7.843E+04	3.443E+03	22.78

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.56	38.52	46.63	47.49	47.56	41.24	47.53

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	67.62	70.55	67.84	67.54	67.40	69.80	68.46	7.880E+04	3.850E+03	20.47
2	67.85	68.00	68.01	67.50	67.87	67.57	67.80	7.864E+04	3.999E+03	19.66
3	67.89	67.43	67.60	67.99	67.85	67.33	67.68	7.963E+04	4.106E+03	19.39
4	68.78	69.93	70.22	68.35	68.05	71.10	69.41	7.710E+04	3.673E+03	20.99
5	72.71	71.42	70.56	69.39	72.08	71.87	71.34	7.818E+04	3.433E+03	22.77

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.35	38.44	46.69	47.47	47.57	41.16	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	69.02	72.65	69.33	69.03	68.90	71.82	70.13	9.677E+04	4.389E+03	22.05
2	69.31	69.51	69.44	68.86	69.40	68.86	69.23	9.656E+04	4.595E+03	21.01
3	69.49	69.97	69.13	69.51	69.34	68.70	69.19	9.780E+04	4.698E+03	20.82
4	70.42	71.99	72.32	69.51	69.51	73.25	71.23	9.466E+04	4.164E+03	22.73
5	75.02	73.45	72.48	70.85	74.22	73.91	73.32	9.597E+04	3.890E+03	24.67

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	38.38	38.45	46.69	47.48	47.58	41.17	47.53	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	69.03	72.66	69.35	69.02	68.86	71.82	70.12	9.673E+04	4.390E+03	22.04
2	69.31	69.52	69.45	68.86	69.39	68.87	69.23	9.653E+04	4.596E+03	21.00
3	69.49	68.98	69.13	69.51	69.35	68.70	69.19	9.773E+04	4.696E+03	20.81
4	70.40	71.98	72.33	69.92	69.50	73.27	71.24	9.460E+04	4.162E+03	22.73
5	75.04	73.44	72.47	70.86	74.23	73.92	73.32	9.591E+04	3.888E+03	24.67

NOTE: 20 X-Y pairs were stored in plot data file PISMA23

Disk number = 06

File name: DSMS24

This data set taken on : 02:04:13:04:15

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	42.60	42.44	46.64	47.45	47.52	43.89	47.48	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	68.69	72.11	69.01	68.70	68.52	71.35	69.73	9.087E+04	4.184E+03	21.72
2	68.88	69.05	69.03	68.41	68.92	68.51	68.80	9.067E+04	4.391E+03	20.65
3	69.01	68.44	68.49	68.96	68.83	68.20	68.66	9.183E+04	4.511E+03	20.35
4	69.64	71.05	71.39	69.30	68.94	72.33	70.44	8.884E+04	4.036E+03	22.01
5	74.48	72.96	72.06	70.51	73.62	73.43	72.84	9.008E+04	3.713E+03	24.26

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	42.62	42.48	46.64	47.45	47.51	43.92	47.48	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	68.73	72.16	69.04	68.72	68.52	71.39	69.76	9.111E+04	4.189E+03	21.75
2	68.91	69.08	69.04	68.43	68.87	68.52	68.81	9.092E+04	4.401E+03	20.66
3	69.02	68.45	68.53	69.00	68.85	68.23	68.68	9.205E+04	4.517E+03	20.38
4	69.67	71.10	71.41	69.30	68.93	72.36	70.46	8.905E+04	4.042E+03	22.03
5	74.51	72.98	72.08	70.53	73.66	73.46	72.87	9.032E+04	3.718E+03	24.29

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	42.94	42.78	46.68	47.52	47.57	44.13	47.54	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	67.10	69.88	67.39	67.16	66.80	69.19	67.92	7.446E+04	3.734E+03	19.94
2	67.26	67.31	67.45	66.74	67.14	67.00	67.16	7.430E+04	3.903E+03	19.04
3	67.28	66.76	66.77	67.33	67.19	66.71	67.01	7.526E+04	4.018E+03	18.73
4	67.73	68.61	68.98	67.37	67.11	69.82	68.27	7.281E+04	3.655E+03	19.86
5	72.14	70.87	70.09	68.75	71.33	71.32	70.75	7.386E+04	3.328E+03	22.19

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.00	42.81	46.70	47.52	47.58	44.17	47.55

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	67.10	69.91	67.43	67.15	66.79	69.21	67.93	7.468E+04	3.746E+03	19.94
2	67.28	67.33	67.45	66.75	67.17	67.06	67.18	7.453E+04	3.915E+03	19.04
3	67.28	66.78	66.79	67.34	67.21	66.72	67.02	7.547E+04	4.029E+03	18.73
4	67.75	68.63	68.99	67.39	67.13	69.83	68.29	7.303E+04	3.676E+03	19.87
5	72.15	70.87	70.10	68.76	71.35	71.32	70.76	7.409E+04	3.339E+03	22.19

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.38	42.98	46.57	47.38	47.43	44.31	47.41

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	64.65	66.75	65.08	64.74	64.39	66.13	65.29	5.639E+04	3.216E+03	17.53
2	64.81	64.83	65.12	64.42	64.68	64.88	64.79	5.627E+04	3.331E+03	16.89
3	64.82	64.48	64.40	65.01	64.90	64.43	64.67	5.700E+04	3.428E+03	16.63
4	65.21	65.61	65.96	64.83	64.65	66.65	65.49	5.516E+04	3.188E+03	17.30
5	68.87	67.99	67.33	66.32	68.28	68.46	67.87	5.596E+04	2.863E+03	19.54

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.34	42.99	46.56	47.39	47.43	44.30	47.41

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	64.68	66.74	65.06	64.74	64.39	66.12	65.29	5.642E+04	3.219E+03	17.53
2	64.79	64.80	65.10	64.39	64.66	64.88	64.77	5.629E+04	3.336E+03	16.87
3	64.82	64.46	64.40	65.00	64.89	64.45	64.67	5.703E+04	3.431E+03	16.62
4	65.21	65.59	65.95	64.83	64.66	66.64	65.48	5.518E+04	3.191E+03	17.30
5	68.85	67.99	67.33	66.31	68.28	68.44	67.87	5.598E+04	2.866E+03	19.53

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.59	43.40	46.71	47.54	47.57	44.57	47.55

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	60.72	61.94	61.16	60.74	60.54	61.46	61.09	3.382E+04	2.542E+03	13.30
2	60.82	60.93	61.32	60.73	60.89	61.10	60.97	3.376E+04	2.589E+03	13.04
3	60.88	60.87	60.81	61.32	61.19	60.73	60.97	3.421E+04	2.654E+03	12.89
4	61.43	61.63	61.70	61.15	61.05	62.31	61.55	3.310E+04	2.483E+03	13.33
5	63.91	63.72	63.17	62.62	63.77	64.17	63.56	3.359E+04	2.210E+03	15.20

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.68	42.38	46.70	47.55	47.57	44.59	47.56

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	60.70	61.91	61.10	60.68	60.46	61.42	61.05	3.377E+04	2.547E+03	13.26
2	60.78	60.90	61.30	60.70	60.87	61.07	60.94	3.370E+04	2.591E+03	13.01
3	60.85	60.83	60.77	61.31	61.14	60.71	60.94	3.418E+04	2.658E+03	12.86
4	61.42	61.61	61.67	61.13	61.01	62.29	61.52	3.308E+04	2.486E+03	13.30
5	63.88	63.70	63.14	62.59	63.73	64.14	63.53	3.356E+04	2.213E+03	15.17

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.76	43.19	46.60	47.46	47.48	44.52	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	56.41	57.01	56.66	56.33	56.25	56.70	56.56	1.759E+04	1.967E+03	8.94
2	56.63	56.75	57.04	56.73	56.74	56.89	56.80	1.757E+04	1.944E+03	9.04
3	56.93	57.05	57.04	57.38	57.22	56.92	57.09	1.784E+04	1.942E+03	9.18
4	57.57	57.72	57.59	57.33	57.26	58.16	57.60	1.725E+04	1.805E+03	9.56
5	59.08	59.32	58.85	58.45	58.94	59.55	59.03	1.749E+04	1.614E+03	10.84

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.75	43.21	46.62	47.45	47.49	44.53	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	56.39	57.03	56.67	56.31	56.27	56.71	56.56	1.756E+04	1.963E+03	8.95
2	56.63	56.74	57.04	56.73	56.71	56.93	56.79	1.754E+04	1.942E+03	9.03
3	56.92	57.04	57.04	57.39	57.23	56.90	57.09	1.780E+04	1.939E+03	9.18
4	57.56	57.72	57.59	57.33	57.25	58.15	57.60	1.722E+04	1.802E+03	9.55
5	59.07	59.31	58.82	58.43	58.92	59.52	59.01	1.746E+04	1.614E+03	10.82

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.57	43.04	46.72	47.53	47.59	44.44	47.56

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.51	54.99	54.72	54.45	54.42	54.77	54.64	1.197E+04	1.719E+03	6.96
2	54.89	54.97	55.33	55.20	55.06	55.21	55.11	1.197E+04	1.642E+03	7.29
3	55.30	55.40	55.42	55.70	55.56	55.28	55.44	1.216E+04	1.626E+03	7.47
4	55.86	56.00	55.86	55.66	55.64	56.30	55.88	1.175E+04	1.512E+03	7.77
5	57.06	57.30	56.96	56.61	56.92	57.46	57.05	1.192E+04	1.355E+03	8.60

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.54	43.03	46.72	47.53	47.59	44.43	47.56

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	54.51	54.98	54.70	54.44	54.38	54.76	54.63	1.195E+04	1.719E+03	6.95
2	54.88	54.96	55.32	55.16	55.13	55.23	55.11	1.195E+04	1.639E+03	7.29
3	55.32	55.38	55.42	55.73	55.54	55.29	55.45	1.214E+04	1.623E+03	7.48
4	55.85	55.99	55.83	55.66	55.62	56.30	55.87	1.174E+04	1.512E+03	7.76
5	57.05	57.29	56.95	56.59	56.89	57.45	57.04	1.191E+04	1.356E+03	8.76

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.14	42.71	46.68	47.52	47.57	44.18	47.54

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	53.03	53.51	53.26	52.99	53.04	53.36	53.20	8.350E+03	1.503E+03	5.56
2	53.45	53.57	53.81	53.71	53.66	53.76	53.66	8.352E+03	1.422E+03	5.87
3	53.93	54.00	54.02	54.21	54.08	53.89	54.02	8.497E+03	1.395E+03	6.09
4	54.46	54.57	54.48	54.32	54.33	54.76	54.49	8.212E+03	1.260E+03	6.42
5	55.56	55.79	55.51	55.14	55.37	55.90	55.54	8.324E+03	1.137E+03	7.32

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.12	42.70	46.68	47.51	47.56	44.17	47.53

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.06	53.51	53.26	53.02	53.03	53.36	53.21	8.364E+03	1.500E+03	5.57
2	53.49	53.55	53.81	53.72	53.72	53.76	53.67	8.370E+03	1.419E+03	5.90
3	53.94	54.02	54.01	54.21	54.09	53.89	54.03	8.514E+03	1.394E+03	6.11
4	54.47	54.55	54.49	54.30	54.30	54.78	54.48	8.223E+03	1.281E+03	6.42
5	55.56	55.77	55.51	55.13	55.35	55.91	55.54	8.341E+03	1.138E+03	7.33

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.74	42.34	46.71	47.55	47.58	43.93	47.57

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.78	52.23	51.94	51.76	51.85	52.15	51.95	5.341E+03	1.241E+03	4.30
2	52.09	52.17	52.33	52.24	52.38	52.35	52.26	5.353E+03	1.198E+03	4.47
3	52.66	52.70	52.69	52.87	52.73	52.58	52.71	5.453E+03	1.144E+03	4.77
4	53.17	53.27	53.20	53.04	53.05	53.40	53.19	5.267E+03	1.031E+03	5.11
5	54.18	54.35	54.18	53.79	53.96	54.45	54.15	5.339E+03	9.007E+02	5.93

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.69	42.28	46.68	47.54	47.55	43.88	47.55

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.78	52.20	51.93	51.74	51.84	52.09	51.93	5.337E+03	1.240E+03	4.30
2	52.09	52.10	52.29	52.22	52.18	52.31	52.19	5.352E+03	1.211E+03	4.42
3	52.61	52.67	52.65	52.82	52.68	52.54	52.66	5.445E+03	1.148E+03	4.74
4	53.11	53.20	53.15	53.01	53.03	53.33	53.14	5.254E+03	1.034E+03	5.08
5	54.14	54.23	54.15	53.77	53.92	54.42	54.12	5.331E+03	9.010E+02	5.92

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.24	42.03	46.68	47.48	47.49	43.65	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	50.37	50.70	50.53	50.33	50.51	50.64	50.51	2.968E+03	1.003E+03	2.96
2	50.69	50.73	50.87	50.81	50.98	50.91	50.83	2.981E+03	9.523E+02	3.13
3	51.31	51.31	51.29	51.46	51.34	51.21	51.32	3.042E+03	8.752E+02	3.48
4	51.78	51.88	51.83	51.68	51.69	51.97	51.80	2.937E+03	7.700E+02	3.81
5	52.93	53.07	52.94	52.64	52.75	53.10	52.91	2.977E+03	6.236E+02	4.77

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.24	41.96	46.71	47.52	47.52	43.64	47.52

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	50.40	50.75	50.57	50.38	50.54	50.68	50.55	2.971E+03	1.004E+03	2.96
2	50.71	50.74	50.92	50.87	50.87	50.98	50.85	2.987E+03	9.603E+02	3.11
3	51.38	51.38	51.30	51.50	51.38	51.23	51.36	3.047E+03	8.757E+02	3.48
4	51.81	51.92	51.84	51.69	51.70	52.01	51.83	2.938E+03	7.724E+02	3.80
5	52.92	53.06	52.94	52.63	52.76	53.11	52.90	2.981E+03	6.299E+02	4.73

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldv			
	42.22	41.86	46.74	47.46	47.47	43.61	47.47			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	49.18	49.40	49.26	49.18	49.27	49.37	49.28	1.409E+03	8.052E+02	1.75
2	49.56	49.58	49.65	49.64	49.68	49.65	49.63	1.420E+03	7.266E+02	1.95
3	50.16	50.17	50.10	50.25	50.20	50.06	50.16	1.455E+03	6.208E+02	2.34
4	50.85	50.93	50.87	50.67	50.69	50.97	50.83	1.401E+03	4.879E+02	2.87
5	51.84	51.93	51.96	51.61	51.70	52.01	51.84	1.420E+03	3.796E+02	3.74

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	42.20	41.84	46.74	47.46	47.43	43.59	47.45			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	49.14	49.37	49.24	49.15	49.26	49.33	49.25	1.413E+03	8.130E+02	1.74
2	49.52	49.55	49.65	49.63	49.67	49.66	49.61	1.425E+03	7.276E+02	1.96
3	50.16	50.17	50.09	50.24	50.18	50.05	50.15	1.459E+03	6.200E+02	2.35
4	50.84	50.90	50.86	50.65	50.69	50.97	50.82	1.406E+03	4.886E+02	2.88
5	51.81	51.90	51.90	51.57	51.64	51.97	51.80	1.424E+03	3.836E+02	3.71

NOTE: 20 X-Y pairs were stored in plot data file PDSMD24

Disk number = 07

File name: ISMC25

This data set taken on : 02 04:11:00:24

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	35.91	35.32	46.66	47.48	47.52	39.30	47.50			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	50.05	50.12	50.23	50.07	50.17	50.07	50.12	1.062E+03	4.157E+02	2.56
2	52.73	52.72	52.59	52.77	51.99	52.14	52.49	1.075E+03	2.247E+02	4.78
3	52.66	53.50	53.53	52.75	53.52	53.57	53.25	1.102E+03	2.038E+02	5.41

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	35.84	35.29	46.63	47.59	47.51	39.25	47.55			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	50.05	50.29	50.31	50.08	50.25	50.23	50.20	1.060E+03	4.090E+02	2.59
2	52.89	52.88	52.81	52.97	52.20	52.31	52.68	1.072E+03	2.178E+02	4.92
3	52.79	53.57	53.63	52.86	53.62	53.67	53.36	1.098E+03	2.013E+02	5.46

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	35.76	35.47	46.20	47.54	47.40	39.14	47.47			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	51.97	52.31	52.38	52.07	52.25	52.24	52.20	1.886E+03	4.042E+02	4.67
2	55.83	55.83	55.96	56.19	55.06	55.25	55.69	1.901E+03	2.376E+02	8.00
3	55.98	57.16	57.08	56.05	57.18	57.13	56.76	1.944E+03	2.176E+02	8.94

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
35.63	35.57	46.20	47.53	47.32	39.14	47.43

Tube	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.71	52.30	52.30	51.76	52.23	52.24	52.09	1.891E+03	4.113E+02	4.60
2	55.55	55.54	56.05	56.19	55.32	55.54	55.70	1.907E+03	2.366E+02	8.06
3	56.20	57.22	56.96	56.34	57.26	56.96	56.82	1.949E+03	2.156E+02	9.04

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.21	36.09	46.15	47.91	47.12	39.48	47.52

Tube	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.23	53.21	52.04	52.32	51.96	53.26	52.51	3.939E+03	8.017E+02	4.91
2	59.15	59.12	60.18	60.13	59.76	59.91	59.71	3.954E+03	3.303E+02	11.97
3	60.81	61.85	61.07	61.01	61.89	61.13	61.29	4.033E+03	3.007E+02	13.41

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.22	35.98	46.20	47.60	47.16	39.46	47.48

Tube	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.17	52.86	51.96	52.21	51.85	52.82	52.31	3.942E+03	8.290E+02	4.76
2	59.33	59.25	60.32	60.28	59.80	59.99	59.83	3.958E+03	3.304E+02	12.13
3	60.96	61.90	61.03	61.17	61.97	61.08	61.35	4.037E+03	2.988E+02	13.51

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.88	36.33	46.39	47.77	47.33	39.87	47.55

Tube	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.84	53.31	52.60	52.93	52.48	53.34	52.92	5.285E+03	1.001E+03	5.28
2	60.21	60.12	60.83	61.09	60.70	60.72	60.61	5.298E+03	4.129E+02	12.83
3	61.99	62.84	61.88	62.23	62.09	61.88	62.29	5.400E+03	3.760E+02	14.36

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.91	36.39	46.40	47.75	47.37	39.90	47.56

Tube	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.82	53.36	52.60	52.97	52.43	53.36	52.94	5.287E+03	9.962E+02	5.30
2	60.16	60.11	60.81	60.95	60.78	60.78	60.60	5.303E+03	4.137E+02	12.82
3	61.97	62.69	61.65	62.18	62.71	61.63	62.13	5.403E+03	3.805E+02	14.20

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.92	37.33	46.52	47.53	47.51	40.59	47.52

Tube	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.77	53.39	53.03	52.73	52.86	53.26	53.01	6.898E+03	1.279E+03	5.39
2	56.10	56.23	60.17	59.44	61.08	61.08	59.02	6.912E+03	6.140E+02	11.26
3	62.72	62.70	60.81	63.02	62.74	60.77	62.13	7.031E+03	4.942E+02	14.23

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.93	37.32	46.51	47.53	47.45	40.59	47.49

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	52.70	53.41	53.06	52.68	52.88	53.27	53.00	6.880E+03	1.271E+03	5.41
2	56.11	56.25	60.15	59.41	61.08	61.08	59.02	6.889E+03	6.104E+02	11.29
3	62.85	62.80	60.91	63.12	62.83	60.88	62.23	7.018E+03	4.887E+02	14.36

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.30	38.55	46.45	47.45	47.62	41.43	47.53

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	53.17	54.09	53.43	53.17	53.21	53.94	53.50	8.262E+03	1.408E+03	5.87
2	54.54	54.63	58.89	56.71	61.18	61.19	57.86	8.273E+03	8.207E+02	10.08
3	62.15	57.38	55.77	62.33	57.32	55.56	58.42	8.413E+03	8.015E+02	10.50

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.29	38.53	46.50	47.46	47.64	41.44	47.55

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	53.23	53.99	53.45	53.23	53.22	53.85	53.49	8.328E+03	1.425E+03	5.84
2	54.52	54.60	56.71	55.66	57.93	57.56	56.16	8.334E+03	9.958E+02	8.37
3	61.75	57.29	55.82	61.92	57.24	55.58	58.27	8.483E+03	8.214E+02	10.33

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
40.18	39.32	46.50	47.42	47.61	42.00	47.51

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	53.97	54.90	54.35	53.96	54.08	54.70	54.33	1.029E+04	1.534E+03	6.71
2	55.11	55.16	56.71	55.92	57.87	57.59	56.39	1.029E+04	1.193E+03	8.63
3	63.26	57.97	56.46	63.48	57.93	56.17	59.21	1.047E+04	9.264E+02	11.30

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
40.31	39.40	46.50	47.44	47.62	42.07	47.53

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	54.03	54.89	54.38	54.01	54.12	54.69	54.35	1.027E+04	1.530E+03	6.71
2	55.11	55.18	56.65	55.88	57.92	57.60	56.39	1.028E+04	1.194E+03	8.61
3	63.24	57.97	56.45	63.45	57.93	56.18	59.20	1.044E+04	9.262E+02	11.28

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
41.53	40.98	46.37	47.44	47.51	42.96	47.48

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	55.74	56.40	56.22	55.72	55.76	56.08	55.99	1.446E+04	1.725E+03	8.38
2	56.80	56.89	57.31	57.32	57.15	57.23	57.12	1.445E+04	1.543E+03	9.36
3	61.25	58.20	58.00	61.45	58.16	57.60	59.11	1.468E+04	1.309E+03	11.22

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	41.58	41.00	46.37	47.43	47.52	42.98	47.47			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	55.74	56.36	56.21	55.72	55.78	56.02	55.97	1.445E+04	1.727E+03	8.37
2	56.82	56.89	57.31	57.30	57.14	57.22	57.11	1.444E+04	1.543E+03	9.36
3	61.06	58.15	57.97	61.22	58.10	57.58	59.01	1.468E+04	1.320E+03	11.12

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	42.60	42.19	46.58	47.49	47.49	43.79	47.49			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.75	61.79	61.29	60.66	60.77	61.40	61.11	3.005E+04	2.241E+03	13.41
2	61.46	61.62	62.01	61.55	61.64	61.72	61.67	3.001E+04	2.171E+03	13.82
3	62.26	62.49	62.83	62.97	62.46	62.20	62.53	3.042E+04	2.092E+03	14.54

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	42.69	42.26	46.59	47.51	47.49	43.85	47.50			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	60.76	61.80	61.26	60.66	60.71	61.40	61.10	2.979E+04	2.225E+03	13.39
2	61.41	61.58	61.97	61.51	61.62	61.71	61.63	2.975E+04	2.159E+03	13.78
3	62.24	62.47	62.83	62.95	62.46	62.19	62.52	3.018E+04	2.078E+03	14.52

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	42.69	42.58	46.72	47.54	47.53	44.00	47.54			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	64.72	66.85	65.17	64.61	64.76	66.26	65.39	5.049E+04	2.878E+03	17.54
2	64.86	65.03	65.31	64.71	65.00	64.96	64.98	5.037E+04	2.967E+03	16.98
3	65.14	64.94	65.03	65.51	65.23	64.65	65.12	5.106E+04	3.009E+03	16.97

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	42.81	42.65	46.74	47.54	47.56	44.07	47.55			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	64.72	66.83	65.09	64.59	64.71	66.26	65.36	5.051E+04	2.887E+03	17.50
2	64.88	65.05	65.31	64.70	65.00	64.97	64.98	5.041E+04	2.970E+03	16.97
3	65.13	64.91	64.99	65.50	65.23	64.65	65.10	5.108E+04	3.015E+03	16.94

NOTE 20 X-Y pairs were stored in plot data file PISM025

Dist number = 07

File name DSM025

This data set taken on 02 07:18:55 03

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.61	46.48	45.95	47.48	47.54	46.01	47.51

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	68.33	72.07	68.66	68.37	68.18	71.28	69.48	9.173E+04	4.279E+03	21.44
2	68.28	68.43	68.55	67.84	68.40	68.11	68.27	9.151E+04	4.556E+03	20.08
3	68.55	67.77	67.70	68.41	68.35	67.71	68.08	9.270E+04	4.695E+03	19.75

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.70	46.44	45.95	47.47	47.54	46.03	47.51

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	68.33	72.07	68.63	68.37	68.07	71.28	69.46	9.186E+04	4.289E+03	21.42
2	68.26	68.42	68.55	67.85	68.39	68.09	68.26	9.163E+04	4.564E+03	20.08
3	68.53	67.74	67.71	68.40	68.35	67.70	68.07	9.280E+04	4.701E+03	19.74

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.45	44.78	46.66	47.48	47.47	45.63	47.47

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	66.27	69.41	66.71	66.36	66.11	68.77	67.27	7.546E+04	3.900E+03	19.35
2	66.22	66.35	66.49	65.77	66.22	66.17	66.20	7.529E+04	4.151E+03	18.14
3	66.32	65.67	65.63	66.31	66.20	65.72	65.98	7.623E+04	4.292E+03	17.76

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.51	44.69	46.62	47.40	47.46	45.61	47.43

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	66.26	69.47	66.70	66.36	66.13	68.80	67.29	7.548E+04	3.889E+03	19.41
2	66.22	66.34	66.49	65.77	66.21	66.15	66.20	7.530E+04	4.143E+03	18.17
3	66.29	65.64	65.62	66.30	66.19	65.70	65.96	7.626E+04	4.289E+03	17.79

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.46	44.42	46.69	47.43	47.44	45.19	47.44

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	63.35	65.63	63.85	63.45	63.22	65.06	64.09	5.359E+04	3.283E+03	16.32
2	63.22	63.29	63.58	62.89	63.20	63.38	63.26	5.346E+04	3.484E+03	15.35
3	63.41	62.97	63.01	63.61	63.40	63.09	63.25	5.418E+04	3.567E+03	15.19

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.41	44.40	46.68	47.43	47.44	45.16	47.43

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	63.36	65.67	63.84	63.44	63.20	65.08	64.10	5.349E+04	3.276E+03	16.33
2	63.24	63.31	63.60	62.90	63.19	63.38	63.27	5.337E+04	3.475E+03	15.36
3	63.40	62.97	63.03	63.63	63.41	63.11	63.26	5.406E+04	3.557E+03	15.20

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.26	44.00	46.67	47.42	47.44	44.98	47.43

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	59.56	60.68	59.89	59.57	59.21	60.19	59.85	3.169E+04	2.598E+03	12.20
2	59.35	59.44	59.82	59.24	59.43	59.71	59.50	3.165E+04	2.704E+03	11.70
3	59.96	59.74	59.92	60.45	60.05	59.83	59.99	3.208E+04	2.661E+03	12.05

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.28	43.97	46.69	47.44	47.46	44.98	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	59.57	60.71	59.95	59.60	59.26	60.21	59.88	3.177E+04	2.601E+03	12.21
2	59.38	59.46	59.86	59.28	59.44	59.73	59.53	3.169E+04	2.706E+03	11.71
3	59.99	59.75	59.93	60.48	60.08	59.85	60.01	3.213E+04	2.665E+03	12.05

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.33	43.92	46.62	47.43	47.46	44.96	47.45

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.63	56.10	55.86	55.63	55.39	55.71	55.72	1.610E+04	1.978E+03	8.14
2	55.73	55.84	56.12	55.81	55.89	56.11	55.92	1.608E+04	1.964E+03	8.19
3	56.27	56.17	56.31	56.69	56.34	56.16	56.32	1.633E+04	1.932E+03	8.45

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.36	43.89	46.60	47.42	47.45	44.95	47.43

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.63	56.07	55.86	55.62	55.38	55.70	55.71	1.608E+04	1.976E+03	8.14
2	55.71	55.81	56.10	55.80	55.87	56.08	55.89	1.606E+04	1.964E+03	8.18
3	56.26	56.16	56.29	56.69	56.31	56.15	56.31	1.630E+04	1.929E+03	8.45

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.27	43.74	46.65	47.48	47.51	44.89	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.80	54.09	54.05	53.88	53.72	53.83	53.91	1.078E+04	1.710E+03	6.30
2	54.05	54.19	54.39	54.23	54.27	54.40	54.26	1.078E+04	1.656E+03	6.51
3	54.68	54.61	54.70	55.01	54.70	54.58	54.71	1.095E+04	1.607E+03	6.82

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.16	43.75	46.62	47.46	47.49	44.95	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.89	54.09	54.02	53.85	53.69	53.80	53.89	1.080E+04	1.713E+03	6.31
2	54.07	54.19	54.38	54.23	54.26	54.40	54.25	1.080E+04	1.656E+03	6.52
3	54.67	54.60	54.69	55.00	54.69	54.55	54.70	1.097E+04	1.608E+03	6.82

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.03	43.51	46.59	47.44	47.47	44.71	47.46

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	52.49	52.71	52.67	52.49	52.41	52.52	52.53	7.558E+03	1.516E+03	5.00
2	52.02	52.90	53.13	53.02	53.01	53.10	53.00	7.566E+03	1.427E+03	5.30
3	53.54	53.52	53.57	53.79	53.57	53.49	53.58	7.697E+03	1.340E+03	5.74

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.96	43.45	46.58	47.44	47.46	44.66	47.45

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	52.49	52.69	52.64	52.48	52.40	52.51	52.53	7.564E+03	1.516E+03	4.99
2	52.01	52.89	53.12	53.01	53.00	53.09	52.99	7.572E+03	1.430E+03	5.30
3	53.52	53.52	53.57	53.77	53.57	53.49	53.57	7.700E+03	1.342E+03	5.74

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.43	43.40	46.60	47.44	47.45	44.48	47.44

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	50.99	51.22	51.20	50.98	51.10	51.10	51.10	4.718E+03	1.319E+03	3.58
2	51.38	51.42	51.63	51.55	51.59	51.62	51.53	4.732E+03	1.225E+03	3.86
3	52.47	52.47	52.50	52.64	52.50	52.47	52.51	4.823E+03	1.026E+03	4.70

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.39	43.38	46.56	47.42	47.42	44.44	47.42

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	50.98	51.19	51.18	50.97	51.08	51.07	51.08	4.711E+03	1.317E+03	3.58
2	51.35	51.39	51.60	51.52	51.56	51.58	51.50	4.722E+03	1.224E+03	3.86
3	52.43	52.44	52.49	52.61	52.49	52.45	52.48	4.816E+03	1.025E+03	4.70

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.27	43.22	46.69	47.49	47.48	44.39	47.49

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	49.76	49.98	49.94	49.75	49.91	49.89	49.87	2.681E+03	1.156E+03	2.32
2	50.20	50.23	50.40	50.35	50.40	50.41	50.33	2.695E+03	1.024E+03	2.63
3	51.69	51.71	51.64	51.80	51.76	51.64	51.70	2.749E+03	7.117E+02	3.86

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.21	43.21	46.68	47.49	47.46	44.37	47.48

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	49.78	49.96	49.93	49.74	49.91	49.89	49.87	2.676E+03	1.151E+03	2.33
2	50.19	50.22	50.38	50.35	50.37	50.38	50.32	2.689E+03	1.024E+03	2.63
3	51.71	51.73	51.66	51.81	51.77	51.66	51.72	2.745E+03	7.055E+02	3.89

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
43.01	42.92	46.75	47.49	47.50	44.23	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	48.83	48.91	48.90	48.82	48.90	48.84	48.87	1.265E+03	9.620E+02	1.32
2	49.41	49.43	49.50	49.50	49.44	49.47	49.46	1.277E+03	7.259E+02	1.76
3	50.90	51.00	50.79	50.98	51.04	50.80	50.92	1.305E+03	4.241E+02	3.08

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
42.99	42.89	46.76	47.46	47.50	44.21	47.48

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	48.85	48.91	48.91	48.84	48.90	48.85	48.88	1.264E+03	9.440E+02	1.34
2	49.41	49.43	49.48	49.49	49.43	49.45	49.45	1.276E+03	7.231E+02	1.76
3	50.90	51.01	50.80	50.97	51.04	50.80	50.92	1.305E+03	4.219E+02	3.09

NOTE: 20 X-Y pairs were stored in plot data file PDSMD26

Disk number = 07

File name ISMC27

This data set taken on : 02 06 07 59:38

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
36.92	36.55	46.39	47.42	47.51	39.95	47.46

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	50.73	50.70	50.86	50.77	50.80	50.64	50.75	1.297E+03	4.019E+02	3.23
2	52.42	53.39	53.52	52.71	52.85	53.01	53.32	1.311E+03	2.320E+02	5.65
3	53.31	54.18	53.96	53.42	54.21	53.99	53.85	1.341E+03	2.223E+02	6.03
4	54.28	53.41	54.27	54.04	54.06	53.64	53.95	1.287E+03	2.147E+02	5.99
5	53.79	53.92	54.46	54.00	54.09	54.50	54.13	1.312E+03	2.176E+02	6.03

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
36.92	36.44	46.37	47.42	47.56	39.91	47.49

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	50.71	50.74	50.94	50.71	50.86	50.65	50.77	1.304E+03	4.052E+02	3.22
2	52.52	53.49	53.58	53.75	52.88	53.06	53.36	1.318E+03	2.318E+02	5.69
3	53.30	54.20	53.98	53.42	54.23	54.02	53.85	1.350E+03	2.242E+02	6.02
4	54.35	53.39	54.32	54.14	54.15	53.62	53.99	1.294E+03	2.153E+02	6.01
5	53.77	53.92	54.52	54.06	54.16	54.57	54.17	1.318E+03	2.183E+02	6.04

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
36.52	36.95	46.84	47.28	47.77	39.44	47.53

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	53.35	53.23	52.41	53.43	53.23	53.18	53.30	2.682E+03	4.698E+02	5.71
2	57.44	57.41	57.46	57.80	56.37	56.64	57.19	2.699E+03	2.857E+02	9.45
3	57.32	56.78	56.32	57.47	58.79	58.32	58.17	2.757E+03	2.681E+02	10.28
4	59.16	57.70	59.15	58.60	58.60	58.09	58.55	2.651E+03	2.619E+02	10.52
5	58.60	56.65	56.69	58.85	58.05	59.78	59.14	2.695E+03	2.450E+02	10.57

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
36.39	35.88	45.86	47.39	47.78	39.38	47.58

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	51.78	53.53	53.14	51.73	53.01	53.43	52.77	2.728E+03	5.329E+02	5.12
2	54.51	54.57	56.87	55.95	56.37	56.54	55.80	2.747E+03	3.432E+02	8.00
3	57.21	57.30	55.85	57.35	57.23	55.62	56.76	2.803E+03	3.179E+02	8.82
4	58.32	57.41	58.28	57.49	57.47	57.54	57.75	2.695E+03	2.788E+02	9.67
5	58.08	58.20	58.54	57.56	57.81	58.69	58.15	2.743E+03	2.766E+02	9.92

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.26	36.27	46.43	47.73	47.28	39.99	47.51

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	51.97	52.22	51.24	51.94	51.13	52.17	51.78	4.987E+03	1.190E+03	4.19
2	53.83	53.96	53.89	52.71	56.07	56.01	54.41	5.009E+03	7.497E+02	6.68
3	56.31	53.45	55.17	56.37	53.48	55.00	54.96	5.098E+03	7.191E+02	7.09
4	54.28	55.97	54.32	55.55	55.56	56.03	55.28	4.911E+03	6.760E+02	7.26
5	56.73	56.87	55.93	56.16	56.29	56.23	56.37	4.997E+03	6.091E+02	8.21

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.33	36.36	46.47	47.77	47.28	40.05	47.52

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	51.98	52.23	51.27	51.97	51.16	52.17	51.79	4.968E+03	1.186E+03	4.19
2	53.83	53.94	53.82	52.67	56.04	55.97	54.38	4.989E+03	7.524E+02	6.63
3	56.08	53.29	55.23	56.16	53.40	55.06	54.89	5.084E+03	7.270E+02	6.99
4	54.14	55.88	54.18	55.59	55.62	55.94	55.22	4.897E+03	6.814E+02	7.19
5	56.30	56.41	55.21	55.01	55.90	55.48	55.85	4.882E+03	6.493E+02	7.67

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.00	36.76	46.56	47.59	47.58	40.45	47.59

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	52.63	53.18	52.86	52.61	52.67	53.04	52.83	7.886E+03	1.532E+03	5.15
2	53.12	53.22	53.37	53.21	53.26	53.40	53.26	7.902E+03	1.453E+03	5.44
3	53.79	53.89	53.92	54.04	53.88	53.82	53.89	8.045E+03	1.359E+03	5.92
4	54.24	54.39	54.21	53.96	53.93	54.60	54.22	7.760E+03	1.270E+03	6.11
5	55.27	55.50	55.02	54.58	54.73	55.36	55.08	7.883E+03	1.156E+03	6.82

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.04	36.84	46.56	47.57	47.56	40.48	47.56

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	52.62	52.14	52.83	52.61	52.64	53.01	52.81	7.936E+03	1.540E+03	5.15
2	53.12	53.22	53.35	53.20	53.24	53.36	53.25	7.951E+03	1.460E+03	5.44
3	53.75	53.85	53.91	54.00	53.87	53.81	53.86	8.092E+03	1.367E+03	5.92
4	54.23	54.34	54.19	53.96	53.92	54.52	54.19	7.803E+03	1.278E+03	6.10
5	55.12	55.34	54.98	54.54	54.71	55.30	55.00	7.926E+03	1.172E+03	6.76

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
39.99	37.84	46.57	47.56	47.52	41.47	47.54

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.93	54.65	54.33	53.89	54.02	54.43	54.21	1.130E+04	1.723E+03	6.56
2	54.50	54.62	54.86	54.70	54.64	54.80	54.69	1.130E+04	1.640E+03	6.89
3	55.20	55.39	55.30	55.49	55.39	55.14	55.32	1.150E+04	1.558E+03	7.38
4	55.73	55.83	55.66	55.50	55.42	56.13	55.71	1.110E+04	1.454E+03	7.63
5	56.71	57.04	56.77	56.25	56.48	57.21	56.74	1.127E+04	1.323E+03	8.52

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
40.23	38.01	46.56	47.56	47.52	41.60	47.54

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.94	54.66	54.33	53.89	54.02	54.44	54.21	1.126E+04	1.717E+03	6.56
2	54.49	54.61	54.84	54.69	54.65	54.83	54.68	1.128E+04	1.638E+03	6.88
3	55.16	55.38	55.28	55.51	55.37	55.12	55.30	1.146E+04	1.557E+03	7.36
4	55.71	55.78	55.65	55.49	55.40	56.10	55.69	1.107E+04	1.456E+03	7.60
5	56.69	57.03	56.76	56.23	56.47	57.19	56.73	1.124E+04	1.323E+03	8.50

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.08	42.06	46.63	47.58	47.51	43.93	47.55

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.88	56.90	56.48	55.83	56.04	56.62	56.29	1.651E+04	1.918E+03	8.61
2	56.59	56.69	57.14	56.93	56.80	57.06	56.87	1.650E+04	1.826E+03	9.04
3	57.37	57.51	57.34	57.86	57.60	57.10	57.46	1.676E+04	1.766E+03	9.49
4	57.95	58.31	57.92	57.69	57.57	58.60	58.01	1.618E+04	1.636E+03	9.89
5	58.52	59.92	59.26	58.57	58.92	59.88	59.34	1.643E+04	1.482E+03	11.08

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.22	42.26	46.62	47.59	47.52	44.03	47.55

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	55.90	56.92	56.51	55.83	56.06	56.61	56.30	1.656E+04	1.924E+03	8.61
2	56.59	56.70	57.16	56.95	56.81	57.05	56.88	1.656E+04	1.833E+03	9.04
3	57.34	57.53	57.37	57.85	57.61	57.11	57.47	1.681E+04	1.772E+03	9.48
4	57.98	58.33	57.96	57.70	57.58	58.66	58.04	1.623E+04	1.638E+03	9.91
5	58.52	59.93	59.27	58.60	58.95	59.88	59.36	1.649E+04	1.487E+03	11.09

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.80	43.55	46.64	47.54	47.48	44.67	47.51

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	60.94	62.42	61.61	62.77	61.19	62.87	61.50	3.200E+04	2.324E+03	13.77
2	61.46	61.71	62.15	61.70	61.69	61.73	61.74	3.196E+04	2.305E+03	13.86
3	61.69	61.83	61.69	62.33	61.96	61.23	61.79	3.239E+04	2.353E+03	13.77
4	62.18	62.58	62.46	61.95	61.77	63.08	62.34	3.131E+04	2.208E+03	14.18
5	63.88	62.88	63.24	62.46	63.61	64.29	63.56	3.178E+04	2.084E+03	15.25

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.91	43.72	46.75	47.65	47.58	44.79	47.62

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	61.03	62.51	61.68	60.87	61.26	62.14	61.58	3.197E+04	2.327E+03	13.74
2	61.54	61.80	62.22	61.76	61.75	61.78	61.81	3.194E+04	2.310E+03	13.83
3	61.73	61.84	61.72	62.37	61.99	61.27	61.82	3.238E+04	2.365E+03	13.69
4	62.21	62.61	62.49	61.99	61.81	63.12	62.37	3.130E+04	2.219E+03	14.11
5	63.82	63.84	63.24	62.48	63.62	64.27	63.54	3.177E+04	2.100E+03	15.13

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.61	46.29	45.90	47.46	47.45	45.93	47.46

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	64.78	66.96	64.97	64.64	64.67	66.37	65.40	5.359E+04	3.043E+03	17.61
2	65.12	65.34	65.52	64.99	65.19	65.05	65.20	5.349E+04	3.098E+03	17.27
3	64.97	64.83	64.67	65.36	65.06	64.32	64.87	5.422E+04	3.230E+03	16.79
4	65.38	65.90	66.19	65.03	64.73	66.78	65.67	5.241E+04	3.003E+03	17.45
5	67.86	67.15	66.41	65.33	67.31	67.47	66.92	5.317E+04	2.865E+03	18.56

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.74	46.36	45.91	47.47	47.45	46.00	47.46

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	64.75	66.91	64.91	64.62	64.58	66.31	65.35	5.374E+04	3.062E+03	17.55
2	65.12	65.32	65.49	64.97	65.18	65.01	65.18	5.363E+04	3.111E+03	17.24
3	64.94	64.82	64.66	65.35	65.03	64.32	64.85	5.436E+04	3.242E+03	16.77
4	65.37	65.89	66.17	65.01	64.70	66.77	65.65	5.255E+04	3.015E+03	17.43
5	67.86	67.14	66.39	65.29	67.29	67.47	66.91	5.331E+04	2.875E+03	18.54

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
46.01	46.59	46.19	47.51	47.51	46.27	47.51

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	66.26	69.01	66.59	66.22	66.29	68.39	67.13	7.081E+04	3.690E+03	19.19
2	66.64	66.75	67.00	66.31	66.70	66.58	66.67	7.067E+04	3.802E+03	18.59
3	66.71	66.22	66.27	66.84	66.64	66.02	66.45	7.161E+04	3.929E+03	18.22
4	67.22	68.10	68.37	66.86	66.56	69.19	67.72	6.922E+04	3.576E+03	19.36
5	70.63	69.52	68.75	67.36	69.90	69.98	69.36	7.026E+04	3.370E+03	20.85

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.78	46.58	46.16	47.52	47.52	46.17	47.52

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	66.23	69.01	66.62	66.18	66.25	68.36	67.11	7.068E+04	3.688E+03	19.17
2	66.65	66.75	67.00	66.34	66.73	66.60	66.68	7.056E+04	3.796E+03	18.59
3	66.72	66.22	66.27	66.82	66.67	66.05	66.46	7.150E+04	3.923E+03	18.22
4	67.21	68.08	68.35	66.86	66.56	69.16	67.70	6.915E+04	3.576E+03	19.34
5	70.61	69.52	68.75	67.35	69.89	69.97	69.35	7.017E+04	3.368E+03	20.83

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	46.34	46.43	46.21	47.46	47.49	46.32	47.47	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	67.88	71.32	68.32	67.87	67.88	70.60	68.98	8.568E+04 4.079E+03
2	68.41	68.49	68.63	67.91	68.39	68.16	68.33	8.553E+04 4.231E+03
3	68.58	67.99	67.98	68.53	68.45	67.75	68.21	8.661E+04 4.342E+03
4	69.06	70.05	70.52	68.50	68.20	71.37	69.62	8.372E+04 3.945E+03
5	73.09	71.68	70.92	69.08	72.18	72.22	71.53	8.494E+04 3.695E+03

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	46.46	46.50	46.23	47.47	47.50	46.40	47.48	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	67.86	71.33	68.31	67.82	67.83	70.60	68.96	8.542E+04 4.072E+03
2	68.41	68.51	68.61	67.89	68.37	68.14	68.32	8.527E+04 4.222E+03
3	68.56	68.01	67.99	68.52	68.47	67.79	68.22	8.637E+04 4.331E+03
4	69.04	70.05	70.51	68.48	68.17	71.33	69.60	8.350E+04 3.940E+03
5	73.08	71.68	70.89	69.06	72.16	72.21	71.51	8.472E+04 3.691E+03

NOTE 20 Y-Y pairs were stored in plot data file PISM027

Dist number = 07

File name DSM028

This data set taken on 02-04-14:24:11

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	46.07	45.74	46.23	47.46	47.51	46.01	47.49	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	67.91	71.46	68.41	67.87	67.86	70.68	69.03	8.597E+04 4.085E+03
2	68.57	68.63	68.74	68.03	68.49	68.26	68.45	8.582E+04 4.223E+03
3	68.62	68.05	68.05	68.56	68.53	67.87	68.28	8.691E+04 4.346E+03
4	69.05	70.06	70.58	68.51	68.30	71.38	69.56	8.411E+04 3.957E+03
5	73.41	72.04	71.25	69.52	72.55	72.56	71.89	8.528E+04 3.655E+03

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	45.97	45.99	46.27	47.47	47.51	46.07	47.49	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	67.95	71.48	68.46	67.92	67.83	70.73	69.06	8.595E+04 4.080E+03
2	68.56	68.66	68.78	68.04	68.52	68.31	68.48	8.579E+04 4.217E+03
3	68.64	68.10	68.07	68.57	68.58	67.91	68.31	8.691E+04 4.340E+03
4	69.09	70.09	70.61	68.65	68.31	71.41	69.69	8.410E+04 3.953E+03
5	73.44	72.05	71.26	69.57	72.56	72.58	71.91	8.527E+04 3.652E+03

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.73	45.69	46.25	47.49	47.52	45.89	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	66.93	70.15	67.46	66.90	66.86	69.45	67.96	7.626E+04	3.813E+03	20.00
2	67.55	67.60	67.81	67.08	67.47	67.39	67.48	7.612E+04	3.927E+03	19.38
3	67.52	67.02	66.94	67.52	67.49	66.85	67.23	7.712E+04	4.064E+03	18.98
4	67.74	68.55	69.02	67.33	67.07	69.76	68.25	7.461E+04	3.756E+03	19.87
5	71.91	70.69	69.94	68.28	71.01	71.14	70.49	7.566E+04	3.444E+03	21.97

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.79	45.81	46.27	47.51	47.53	45.96	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	66.93	70.15	67.45	66.90	66.83	69.48	67.96	7.603E+04	3.804E+03	19.99
2	67.49	67.55	67.78	67.06	67.44	67.40	67.46	7.590E+04	3.924E+03	19.34
3	67.50	67.00	66.88	67.47	67.45	66.79	67.18	7.688E+04	4.063E+03	18.92
4	67.71	68.51	68.98	67.29	67.02	69.70	68.20	7.439E+04	3.755E+03	19.81
5	71.84	70.63	69.87	68.22	70.94	71.08	70.43	7.542E+04	3.446E+03	21.89

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.46	43.90	46.06	47.44	47.45	45.14	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	64.07	66.47	64.62	64.03	63.97	65.88	64.84	5.713E+04	3.352E+03	17.04
2	64.42	64.47	64.83	64.08	64.39	64.53	64.45	5.701E+04	3.452E+03	16.52
3	64.37	64.10	63.98	64.57	64.55	63.95	64.25	5.776E+04	3.573E+03	16.17
4	64.70	65.07	65.48	64.29	64.11	66.11	64.96	5.589E+04	3.339E+03	16.74
5	68.09	67.23	66.54	65.21	67.31	67.58	66.99	5.668E+04	3.043E+03	18.63

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.62	43.92	45.98	47.45	47.46	45.18	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	64.06	66.49	64.58	64.02	64.05	65.87	64.85	5.719E+04	3.357E+03	17.04
2	64.41	64.46	64.85	64.11	64.39	64.53	64.46	5.708E+04	3.458E+03	16.51
3	64.38	64.11	63.99	64.55	64.53	63.96	64.25	5.782E+04	3.580E+03	16.15
4	64.72	65.09	65.50	64.31	64.12	66.12	64.98	5.595E+04	3.342E+03	16.74
5	68.10	67.24	66.54	65.23	67.31	67.58	67.00	5.676E+04	3.048E+03	18.62

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.67	44.03	46.76	47.53	47.51	45.15	47.52

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	59.95	61.33	60.40	59.80	59.83	60.84	60.37	3.422E+04	2.712E+03	12.62
2	60.24	60.33	60.76	60.16	60.26	60.50	60.38	3.416E+04	2.738E+03	12.48
3	60.38	60.43	60.32	60.85	60.75	60.20	60.49	3.462E+04	2.783E+03	12.44
4	60.96	61.05	61.21	60.49	60.41	61.73	60.97	3.350E+04	2.619E+03	12.79
5	62.90	62.68	62.13	61.33	62.57	63.01	62.44	3.400E+04	2.410E+03	14.11

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.64	44.00	46.77	47.51	47.50	45.14	47.51			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	59.93	61.32	60.41	59.87	59.86	60.82	60.37	3.421E+04	2.709E+03	12.63
2	60.23	60.32	60.75	60.13	60.23	60.46	60.35	3.414E+04	2.737E+03	12.47
3	60.37	60.41	60.29	60.84	60.73	60.18	60.47	3.461E+04	2.782E+03	12.44
4	60.92	61.01	61.18	60.47	60.38	61.71	60.95	3.350E+04	2.621E+03	12.78
5	62.86	62.64	62.10	61.32	62.57	62.99	62.41	3.397E+04	2.410E+03	14.10

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.38	43.79	46.63	47.45	47.44	44.93	47.44			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.86	56.64	56.23	55.76	55.79	56.27	56.09	1.796E+04	2.113E+03	8.50
2	56.23	56.32	56.69	56.40	56.30	56.57	56.42	1.795E+04	2.067E+03	8.68
3	56.55	56.79	56.65	57.03	56.92	56.46	56.73	1.821E+04	2.057E+03	8.86
4	57.05	57.15	57.04	56.68	56.63	57.57	57.02	1.762E+04	1.958E+03	9.00
5	58.05	58.24	57.85	57.46	57.95	58.45	58.00	1.787E+04	1.817E+03	9.84

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.37	43.79	46.62	47.45	47.44	44.93	47.45			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.85	56.67	56.25	55.77	55.79	56.29	56.10	1.797E+04	2.112E+03	8.51
2	56.22	56.32	56.63	56.41	56.30	56.57	56.42	1.795E+04	2.068E+03	8.68
3	56.57	56.78	56.64	57.04	56.93	56.47	56.74	1.823E+04	2.058E+03	8.86
4	57.05	57.15	57.05	56.69	56.64	57.56	57.02	1.762E+04	1.959E+03	9.00
5	58.05	58.22	57.85	57.46	57.95	58.45	58.00	1.787E+04	1.819E+03	9.83

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.37	43.64	46.71	47.56	47.56	44.57	47.56			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.04	54.71	54.45	53.98	54.09	54.42	54.28	1.232E+04	1.866E+03	6.60
2	54.45	54.52	54.85	54.68	54.55	54.75	54.63	1.233E+04	1.810E+03	6.81
3	54.80	54.95	54.89	55.15	55.04	54.75	54.93	1.253E+04	1.799E+03	6.96
4	55.31	55.33	55.26	55.03	55.00	55.66	55.26	1.211E+04	1.692E+03	7.16
5	56.09	56.29	56.03	55.67	55.98	56.48	56.09	1.228E+04	1.568E+03	7.84

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.32	43.61	46.74	47.56	47.56	44.56	47.56			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	54.05	54.73	54.45	53.98	54.08	54.46	54.29	1.239E+04	1.874E+03	6.61
2	54.47	54.54	54.87	54.69	54.56	54.76	54.65	1.238E+04	1.815E+03	6.82
3	54.81	54.98	54.91	55.15	55.07	54.76	54.95	1.258E+04	1.803E+03	6.98
4	55.32	55.34	55.26	55.04	55.01	55.68	55.28	1.216E+04	1.698E+03	7.16
5	56.10	56.32	56.04	55.69	55.99	56.48	56.10	1.233E+04	1.572E+03	7.84

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.48	43.54	46.62	47.51	47.53	44.55	47.52

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	52.65	53.24	53.00	52.61	52.77	53.03	52.88	8.783E+03	1.668E+03	5.27
2	52.98	53.05	53.33	53.18	53.10	53.23	53.15	8.790E+03	1.633E+03	5.38
3	53.40	53.56	53.48	53.69	53.63	53.38	53.52	8.940E+03	1.592E+03	5.62
4	53.95	53.94	53.91	53.72	53.71	54.21	53.91	8.637E+03	1.475E+03	5.86
5	54.63	54.85	54.64	54.27	54.49	54.98	54.65	8.759E+03	1.358E+03	6.45

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.47	43.50	46.63	47.51	47.53	44.53	47.52

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	52.65	53.24	53.01	52.60	52.79	53.02	52.89	8.801E+03	1.672E+03	5.26
2	52.99	53.04	53.32	53.17	53.10	53.23	53.14	8.810E+03	1.639E+03	5.37
3	53.42	53.55	53.50	53.69	53.63	53.39	53.53	8.958E+03	1.595E+03	5.62
4	53.96	53.95	53.92	53.72	53.71	54.21	53.91	8.656E+03	1.478E+03	5.86
5	54.64	54.87	54.64	54.27	54.49	54.98	54.65	8.781E+03	1.361E+03	6.45

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.64	43.28	46.55	47.43	47.51	44.49	47.47

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.29	51.73	51.55	51.27	51.42	51.60	51.48	5.678E+03	1.447E+03	3.92
2	51.59	51.64	51.78	51.73	51.69	51.77	51.70	5.695E+03	1.422E+03	4.00
3	52.08	52.15	52.07	52.28	52.17	52.01	52.13	5.796E+03	1.352E+03	4.29
4	52.52	52.52	52.52	52.29	52.29	52.70	52.47	5.602E+03	1.248E+03	4.49
5	53.04	53.24	53.12	52.74	52.90	53.36	53.07	5.680E+03	1.151E+03	4.94

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.68	43.25	46.58	47.44	47.50	44.50	47.47

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	51.30	51.75	51.57	51.27	51.44	51.59	51.49	5.672E+03	1.442E+03	3.93
2	51.60	51.64	51.80	51.76	51.69	51.78	51.71	5.688E+03	1.417E+03	4.01
3	52.06	52.13	52.06	52.28	52.18	52.01	52.12	5.792E+03	1.354E+03	4.28
4	52.52	52.53	52.53	52.29	52.30	52.70	52.48	5.592E+03	1.245E+03	4.49
5	53.05	53.25	53.13	52.74	52.89	53.36	53.07	5.673E+03	1.149E+03	4.94

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.42	43.13	46.59	47.44	47.57	44.38	47.51

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	50.17	50.50	50.38	50.17	50.34	50.41	50.33	3.310E+03	1.203E+03	2.75
2	50.37	50.41	50.55	50.52	50.48	50.53	50.48	3.325E+03	1.208E+03	2.75
3	50.82	50.82	50.74	50.87	50.85	50.70	50.82	3.389E+03	1.149E+03	2.95
4	51.24	51.22	51.25	51.01	51.04	51.35	51.18	3.274E+03	1.032E+03	3.17
5	51.48	51.64	51.60	51.31	51.41	51.73	51.53	3.320E+03	9.833E+02	3.38

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.43	43.11	46.63	47.47	47.58	44.39	47.53

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	50.20	50.52	50.40	50.18	50.34	50.45	50.35	3.313E+03	1.205E+03	2.75
2	50.41	50.43	50.58	50.55	50.51	50.56	50.51	3.329E+03	1.204E+03	2.76
3	50.85	50.86	50.79	51.00	50.90	50.75	50.86	3.397E+03	1.143E+03	2.97
4	51.29	51.27	51.30	51.06	51.08	51.38	51.23	3.277E+03	1.024E+03	3.20
5	51.57	51.71	51.66	51.37	51.46	51.80	51.60	3.323E+03	9.711E+02	3.42

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.07	42.93	46.73	47.44	47.59	44.24	47.51

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	49.02	49.26	49.12	49.01	49.12	49.24	49.13	1.563E+03	1.007E+03	1.55
2	49.28	49.28	49.39	49.36	49.40	49.42	49.36	1.577E+03	9.647E+02	1.63
3	49.78	49.69	49.64	49.85	49.72	49.61	49.71	1.613E+03	8.725E+02	1.85
4	50.11	50.20	50.13	49.99	50.01	50.26	50.12	1.554E+03	7.369E+02	2.11
5	50.36	50.45	50.43	50.25	50.31	50.50	50.38	1.575E+03	7.063E+02	2.23

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.95	42.90	46.70	47.48	47.58	44.18	47.53

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	49.05	49.31	49.18	49.03	49.17	49.26	49.17	1.560E+03	9.895E+02	1.58
2	49.30	49.29	49.43	49.40	49.41	49.43	49.38	1.574E+03	9.591E+02	1.64
3	49.81	49.75	49.68	49.89	49.78	49.66	49.76	1.609E+03	8.547E+02	1.88
4	50.15	50.20	50.17	50.03	50.03	50.25	50.14	1.551E+03	7.324E+02	2.12
5	50.37	50.45	50.45	50.26	50.33	50.52	50.40	1.572E+03	7.043E+02	2.23

NOTE 20 X-Y pairs were stored in plot data file PDSMD28

Disk number = 07  
 File name ISMCD9  
 This data set taken on 02 08 19 01 04

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
37.58	37.46	46.74	47.50	47.59	40.59	47.55

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	48.91	49.12	49.04	48.93	49.04	49.08	49.02	1.082E+03	7.651E+02	1.41
2	49.50	49.50	49.59	49.58	49.51	49.57	49.54	1.095E+03	6.112E+02	1.79
3	50.03	50.01	49.94	50.10	50.04	49.95	50.01	1.119E+03	5.286E+02	2.12
4	50.38	50.38	50.40	50.23	50.25	50.48	50.35	1.077E+03	4.654E+02	2.32
5	50.62	50.69	50.64	50.40	50.47	50.71	50.59	1.094E+03	4.548E+02	2.41

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.59	37.44	46.73	47.47	47.64	40.59	47.55

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	48.93	49.07	48.98	48.95	48.97	49.03	48.99	1.084E+03	7.877E+02	1.38
2	49.48	49.46	49.45	49.47	49.33	49.36	49.42	1.096E+03	6.572E+02	1.67
3	49.83	49.90	49.83	49.88	49.93	49.82	49.86	1.122E+03	5.713E+02	1.96
4	50.33	50.30	50.34	50.12	50.16	50.36	50.27	1.079E+03	4.851E+02	2.23
5	50.53	50.60	50.61	50.38	50.44	50.67	50.54	1.096E+03	4.665E+02	2.35

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.78	37.33	46.60	47.35	47.53	40.57	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	49.41	49.72	49.54	49.40	49.52	49.70	49.55	2.055E+03	1.006E+03	2.04
2	49.74	49.76	49.90	49.89	49.80	49.94	49.85	2.070E+03	9.399E+02	2.20
3	50.18	50.17	50.06	50.27	50.20	50.06	50.16	2.118E+03	8.962E+02	2.36
4	50.47	50.45	50.49	50.25	50.27	50.55	50.41	2.039E+03	8.237E+02	2.48
5	50.64	50.75	50.70	50.48	50.55	50.78	50.65	2.069E+03	8.053E+02	2.57

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
37.69	37.27	46.61	47.35	47.57	40.52	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	49.42	49.77	49.54	49.40	49.51	49.75	49.57	2.065E+03	1.011E+03	2.04
2	49.77	49.76	49.88	49.86	49.87	49.91	49.84	2.080E+03	9.592E+02	2.17
3	50.14	50.12	50.05	50.23	50.14	50.04	50.12	2.121E+03	9.198E+02	2.31
4	50.40	50.42	50.43	50.22	50.25	50.50	50.37	2.045E+03	8.480E+02	2.41
5	50.60	50.69	50.65	50.47	50.55	50.73	50.61	2.077E+03	8.267E+02	2.51

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.10	37.46	46.53	47.57	47.42	40.70	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	50.62	50.93	50.95	50.60	50.84	50.82	50.80	3.970E+03	1.230E+03	3.23
2	50.96	50.99	51.29	51.23	51.06	51.11	51.11	3.986E+03	1.175E+03	3.39
3	51.29	51.45	51.29	51.42	51.48	51.24	51.36	4.066E+03	1.160E+03	3.50
4	51.76	51.56	51.77	51.44	51.45	51.74	51.62	3.922E+03	1.083E+03	3.62
5	51.88	52.03	52.08	51.73	51.85	52.22	51.96	3.977E+03	1.041E+03	3.82

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
38.14	37.48	46.56	47.57	47.39	40.73	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	50.64	50.89	50.93	50.64	50.85	50.78	50.79	3.984E+03	1.232E+03	3.23
2	50.97	50.99	51.27	51.24	51.02	51.12	51.10	4.000E+03	1.176E+03	3.40
3	51.30	51.46	51.27	51.45	51.50	51.24	51.37	4.078E+03	1.157E+03	3.52
4	51.76	51.55	51.78	51.45	51.47	51.75	51.63	3.934E+03	1.081E+03	3.64
5	51.87	52.04	52.07	51.74	51.85	52.22	51.97	3.990E+03	1.041E+03	3.83

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
39.42	37.97	46.43	47.48	47.40	41.28	47.44

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.20	51.63	51.66	51.18	51.55	51.48	51.45	5.130E+03	1.307E+03	3.92
2	51.49	51.52	51.96	51.86	51.64	51.79	51.71	5.148E+03	1.274E+03	4.04
3	51.92	52.07	51.82	52.08	52.10	51.78	51.96	5.238E+03	1.262E+03	4.15
4	52.43	52.20	52.42	52.02	52.01	52.40	52.25	5.057E+03	1.179E+03	4.29
5	52.57	52.75	52.75	52.30	52.45	52.92	52.62	5.134E+03	1.135E+03	4.52

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
39.60	38.11	46.43	47.42	47.41	41.38	47.41

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.21	51.64	51.67	51.20	51.57	51.48	51.46	5.135E+03	1.295E+03	3.96
2	51.51	51.55	51.91	51.85	51.62	51.78	51.70	5.151E+03	1.268E+03	4.06
3	51.86	52.02	51.83	52.03	52.05	51.77	51.93	5.251E+03	1.267E+03	4.14
4	52.39	52.17	52.39	52.01	52.00	52.40	52.23	5.065E+03	1.178E+03	4.30
5	52.57	52.76	52.75	52.27	52.43	52.92	52.61	5.139E+03	1.131E+03	4.54

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.51	41.13	46.54	47.60	47.51	43.40	47.56

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.99	52.68	52.57	51.95	52.44	52.51	52.36	6.699E+03	1.422E+03	4.71
2	52.38	52.39	52.94	52.83	52.54	52.73	52.64	6.714E+03	1.385E+03	4.85
3	52.82	52.99	52.73	53.04	53.01	52.66	52.88	6.837E+03	1.384E+03	4.94
4	53.43	53.24	53.41	52.82	52.89	53.50	53.23	6.603E+03	1.281E+03	5.16
5	53.69	53.89	53.80	53.16	53.37	54.03	53.66	6.696E+03	1.232E+03	5.44

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
42.66	41.41	46.53	47.58	47.49	43.53	47.54

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	51.93	52.69	52.57	51.88	52.41	52.52	52.33	6.732E+03	1.431E+03	4.71
2	52.34	52.37	52.96	52.84	52.57	52.71	52.63	6.747E+03	1.388E+03	4.86
3	52.80	52.80	52.70	53.01	53.01	52.65	52.86	6.859E+03	1.386E+03	4.95
4	53.41	53.23	53.40	52.89	52.86	53.52	53.22	6.624E+03	1.283E+03	5.16
5	53.70	53.92	53.80	53.15	53.35	54.03	53.66	6.724E+03	1.232E+03	5.46

Data Set Number = 11

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.40	42.94	46.63	47.63	47.50	44.32	47.57

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	53.24	54.27	54.02	53.19	53.76	54.01	53.75	9.693E+03	1.596E+03	6.07
2	53.81	53.85	54.51	54.35	54.01	54.23	54.13	9.703E+03	1.537E+03	6.31
3	54.46	54.69	54.24	54.73	54.71	54.20	54.50	9.859E+03	1.507E+03	6.54
4	55.25	55.09	55.20	54.44	54.38	55.46	54.97	9.529E+03	1.388E+03	6.87
5	55.67	55.93	55.69	54.81	55.09	55.99	55.53	9.672E+03	1.329E+03	7.28

Data Set Number = 12

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	43.46	43.02	46.64	47.66	47.53	44.37	47.59			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	53.20	54.33	54.04	53.16	53.81	54.07	53.77	9.675E+03	1.593E+03	6.87
2	53.79	53.85	54.49	54.33	54.03	54.21	54.12	9.682E+03	1.543E+03	6.28
3	54.42	54.62	54.25	54.68	54.65	54.20	54.47	9.851E+03	1.519E+03	6.48
4	55.21	55.04	55.16	54.45	54.40	55.40	54.94	9.516E+03	1.397E+03	6.81
5	55.62	55.91	55.69	54.77	55.07	56.01	55.51	9.653E+03	1.334E+03	7.24

Data Set Number = 13

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	44.00	43.46	46.69	47.65	47.51	44.71	47.58			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	54.74	56.27	55.68	54.71	55.40	55.97	55.46	1.407E+04	1.815E+03	7.75
2	55.46	55.52	56.40	56.08	55.94	56.22	55.94	1.406E+04	1.739E+03	8.08
3	56.55	56.65	56.14	56.91	56.71	56.05	56.50	1.427E+04	1.679E+03	8.50
4	57.35	57.44	57.31	56.36	56.31	57.86	57.10	1.381E+04	1.540E+03	8.96
5	58.26	58.59	58.06	56.97	57.37	58.48	57.96	1.401E+04	1.448E+03	9.67

Data Set Number = 14

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	44.01	43.52	46.69	47.66	47.53	44.74	47.59			
Tube #	Wall Temperatures (Deg C)						Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> .K)	Thetab (K)	
1	54.83	56.34	55.76	54.78	55.50	56.04	55.54	1.404E+04	1.795E+03	7.82
2	55.51	55.57	56.45	56.15	55.99	56.26	55.99	1.403E+04	1.727E+03	8.12
3	56.58	56.71	56.18	56.96	56.78	56.06	56.55	1.426E+04	1.671E+03	8.54
4	57.42	57.47	57.37	56.40	56.34	57.91	57.15	1.378E+04	1.531E+03	9.00
5	58.27	58.61	58.07	57.00	57.41	58.50	57.98	1.398E+04	1.444E+03	9.68

Data Set Number = 15

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	46.04	46.21	45.77	47.48	47.42	46.01	47.45			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	59.92	61.97	60.87	59.81	60.50	61.64	60.79	2.931E+04	2.233E+03	13.13
2	60.71	60.92	61.59	61.08	61.18	61.21	61.12	2.928E+04	2.199E+03	13.31
3	61.36	61.40	61.41	61.97	61.57	60.97	61.45	2.967E+04	2.197E+03	13.50
4	62.25	63.14	62.54	61.69	61.56	63.50	62.45	2.871E+04	1.999E+03	14.36
5	64.06	64.51	63.43	62.86	63.66	64.46	63.83	2.912E+04	1.867E+03	15.60

Data Set Number = 16

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	45.6E	46.12	45.77	47.48	47.40	45.85	47.44			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	59.90	61.95	60.87	59.80	60.46	61.64	60.77	2.927E+04	2.231E+03	13.12
2	60.71	60.91	61.56	61.09	61.05	61.22	61.09	2.922E+04	2.197E+03	13.30
3	61.36	61.39	61.40	61.97	61.55	60.97	61.44	2.962E+04	2.194E+03	13.50
4	62.23	63.13	62.52	61.67	61.53	63.50	62.43	2.866E+04	1.997E+03	14.35
5	64.07	64.52	63.32	62.69	63.49	64.38	63.75	2.908E+04	1.873E+03	15.52

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
46.24	46.29	46.26	47.48	47.41	46.27	47.45

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	64.02	67.05	65.18	63.91	65.06	66.70	65.32	4.813E+04	2.740E+03	17.56
2	64.78	65.13	65.04	64.40	65.11	64.62	64.84	4.803E+04	2.833E+03	16.95
3	64.38	64.47	64.54	64.92	64.61	64.08	64.50	4.866E+04	2.957E+03	16.46
4	65.89	66.90	66.76	66.02	65.67	67.44	66.45	4.710E+04	2.578E+03	18.27
5	67.90	67.68	66.67	65.97	67.57	67.85	67.27	4.776E+04	2.521E+03	18.95

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
45.63	46.42	46.22	47.49	47.41	46.09	47.45

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	64.00	67.03	65.17	63.90	65.03	66.67	65.30	4.816E+04	2.745E+03	17.54
2	64.71	65.05	64.97	64.34	64.72	64.55	64.72	4.806E+04	2.857E+03	16.82
3	64.31	64.40	64.47	64.82	64.54	64.02	64.43	4.872E+04	2.975E+03	16.38
4	65.81	66.82	66.69	65.95	65.62	67.38	66.38	4.713E+04	2.591E+03	18.19
5	67.84	67.61	66.61	65.89	67.49	67.80	67.21	4.780E+04	2.533E+03	18.87

NOTE: 18 X-Y pairs were stored in plot data file P15MC29

Dist number = 07

File name = DSM030

This data set taken on 02 06 13:37:13

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
46.56	46.62	46.44	47.55	47.51	46.54	47.53

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	62.11	64.44	62.71	61.99	62.31	63.89	62.91	4.622E+04	3.065E+03	15.08
2	62.53	62.62	62.99	62.29	62.53	62.64	62.60	4.632E+04	3.167E+03	14.63
3	62.67	62.52	62.17	62.97	62.89	62.00	62.53	4.702E+04	3.262E+03	14.41
4	63.13	63.36	63.67	62.60	62.44	64.26	63.24	4.551E+04	3.037E+03	14.99
5	65.21	64.67	64.00	63.01	64.74	65.02	64.44	4.616E+04	2.878E+03	16.04

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
46.48	46.64	46.31	47.55	47.51	46.48	47.53

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	62.04	64.39	62.66	61.94	62.36	63.84	62.87	4.620E+04	3.070E+03	15.05
2	62.43	62.53	62.92	62.21	62.45	62.58	62.52	4.610E+04	3.168E+03	14.55
3	62.58	62.44	62.09	62.89	62.82	61.90	62.45	4.675E+04	3.260E+03	14.34
4	63.04	63.27	63.57	62.51	62.34	64.17	63.15	4.524E+04	3.037E+03	14.90
5	65.12	64.57	63.90	62.90	64.62	64.93	64.34	4.590E+04	2.880E+03	15.94

Data Set Number = 3

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	45.60	46.47	45.98	47.52	47.49	46.02	47.50			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	57.89	59.35	58.48	57.84	58.15	58.91	58.43	2.706E+04	2.521E+03	10.74
2	58.20	58.27	58.68	58.17	58.22	58.50	58.34	2.701E+04	2.573E+03	10.50
3	58.24	58.38	58.13	58.74	58.64	57.98	58.35	2.741E+04	2.645E+03	10.36
4	58.67	58.78	58.84	58.26	58.18	59.41	58.69	2.653E+04	2.511E+03	10.56
5	60.03	60.04	59.48	58.92	59.85	60.34	59.78	2.688E+04	2.337E+03	11.50

Data Set Number = 4

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	45.73	46.58	46.02	47.56	47.51	46.11	47.53			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	57.93	59.38	58.50	57.86	58.11	58.94	58.46	2.707E+04	2.523E+03	10.73
2	58.23	58.30	58.73	58.20	58.25	58.54	58.37	2.703E+04	2.575E+03	10.50
3	58.26	58.41	58.14	58.77	58.66	58.01	58.38	2.742E+04	2.647E+03	10.36
4	58.71	58.80	58.85	58.29	58.20	59.44	58.71	2.652E+04	2.513E+03	10.56
5	60.03	60.07	59.47	58.94	59.85	60.33	59.78	2.689E+04	2.343E+03	11.48

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	44.81	44.83	46.64	47.43	47.39	45.43	47.41			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.69	55.77	55.28	54.64	55.05	55.42	55.14	1.569E+04	2.065E+03	7.59
2	55.02	55.09	55.49	55.20	55.07	55.35	55.20	1.568E+04	2.087E+03	7.51
3	55.18	55.41	55.22	55.57	55.56	55.07	55.33	1.592E+04	2.124E+03	7.50
4	55.62	55.62	55.62	55.24	55.22	56.09	55.57	1.541E+04	2.031E+03	7.59
5	56.49	56.69	56.25	55.80	56.27	56.81	56.38	1.562E+04	1.891E+03	8.26

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	44.83	44.83	46.64	47.43	47.39	45.43	47.41			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.68	55.83	55.26	54.62	54.93	55.49	55.13	1.572E+04	2.072E+03	7.59
2	55.00	55.09	55.50	55.19	55.10	55.36	55.21	1.571E+04	2.091E+03	7.52
3	55.19	55.41	55.20	55.59	55.55	55.07	55.33	1.597E+04	2.129E+03	7.50
4	55.62	55.64	55.62	55.23	55.21	56.10	55.57	1.544E+04	2.033E+03	7.59
5	56.52	56.74	56.28	55.80	56.26	56.85	56.41	1.565E+04	1.889E+03	8.29

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	44.16	44.14	46.62	47.46	47.39	44.97	47.42			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Theteb
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.92	53.78	53.44	52.87	53.18	53.52	53.29	1.063E+04	1.849E+03	5.75
2	53.31	53.36	53.75	53.57	53.40	53.60	53.50	1.064E+04	1.828E+03	5.82
3	53.57	53.79	53.63	53.88	53.88	53.53	53.71	1.092E+04	1.836E+03	5.89
4	53.96	53.96	53.96	53.64	53.63	54.32	53.92	1.046E+04	1.758E+03	5.95
5	54.66	54.86	54.54	54.09	54.39	54.91	54.58	1.061E+04	1.640E+03	6.47

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	44.10	44.20	46.66	47.48	47.42	44.99	47.45			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.99	53.79	53.51	52.93	53.32	53.52	53.34	1.063E+04	1.838E+03	5.78
2	53.33	53.38	53.79	53.60	53.43	53.63	53.53	1.064E+04	1.826E+03	5.02
3	53.60	53.82	53.64	53.89	53.89	53.55	53.73	1.081E+04	1.837E+03	5.89
4	54.01	53.98	54.00	53.68	53.66	54.35	53.95	1.045E+04	1.754E+03	5.96
5	54.67	54.87	54.55	54.12	54.42	54.93	54.59	1.060E+04	1.641E+03	6.46

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	43.97	44.00	46.59	47.46	47.38	44.85	47.42			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.69	52.31	52.10	51.64	51.93	52.13	51.97	7.413E+03	1.663E+03	4.46
2	52.04	52.09	52.38	52.30	52.06	52.21	52.18	7.422E+03	1.641E+03	4.52
3	52.26	52.50	52.38	52.47	52.53	52.34	52.41	7.561E+03	1.640E+03	4.61
4	52.72	52.60	52.71	52.45	52.43	52.91	52.64	7.309E+03	1.557E+03	4.69
5	53.21	53.41	53.21	52.75	52.99	53.47	53.17	7.404E+03	1.456E+03	5.09

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	44.04	44.03	46.58	47.46	47.37	44.88	47.41			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.70	52.31	52.10	51.66	51.95	52.12	51.98	7.421E+03	1.661E+03	4.47
2	52.04	52.09	52.41	52.29	52.06	52.21	52.18	7.436E+03	1.640E+03	4.53
3	52.26	52.49	52.38	52.46	52.52	52.31	52.41	7.571E+03	1.642E+03	4.61
4	52.72	52.60	52.69	52.43	52.42	52.91	52.63	7.312E+03	1.558E+03	4.69
5	53.22	53.39	53.20	52.75	52.97	53.46	53.17	7.413E+03	1.458E+03	5.08

Data Set Number = 11

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	44.50	43.87	46.60	47.54	47.43	44.99	47.49			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	50.61	50.96	50.84	50.60	50.76	50.84	50.77	4.591E+03	1.435E+03	3.20
2	50.82	50.85	51.04	50.98	50.83	50.92	50.91	4.606E+03	1.442E+03	3.20
3	51.14	51.31	51.17	51.28	51.31	51.11	51.22	4.698E+03	1.397E+03	3.36
4	51.50	51.37	51.51	51.26	51.27	51.57	51.41	4.540E+03	1.330E+03	3.41
5	51.86	52.01	51.91	51.52	51.67	52.09	51.84	4.598E+03	1.243E+03	3.70

Data Set Number = 12

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	44.50	43.94	46.60	47.53	47.44	45.01	47.48			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	50.59	50.95	50.81	50.59	50.74	50.84	50.75	4.589E+03	1.438E+03	3.19
2	50.83	50.85	51.05	50.97	50.82	50.92	50.91	4.607E+03	1.440E+03	3.20
3	51.13	51.30	51.16	51.26	51.31	51.13	51.21	4.700E+03	1.397E+03	3.36
4	51.49	51.35	51.50	51.26	51.25	51.56	51.40	4.533E+03	1.330E+03	3.41
5	51.83	51.97	51.89	51.52	51.67	52.06	51.82	4.595E+03	1.247E+03	3.66

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.06	43.62	46.57	47.48	47.49	44.75	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	49.61	49.76	49.78	49.60	49.73	49.68	49.69	2.538E+03	1.186E+03	2.14
2	49.84	49.85	49.98	49.96	49.81	49.89	49.89	2.553E+03	1.165E+03	2.19
3	50.05	50.13	50.06	50.15	50.16	50.03	50.10	2.610E+03	1.158E+03	2.25
4	50.37	50.21	50.39	50.21	50.23	50.36	50.29	2.517E+03	1.091E+03	2.31
5	50.52	50.64	50.71	50.47	50.57	50.80	50.62	2.551E+03	1.025E+03	2.49

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.04	43.62	46.56	47.49	47.50	44.74	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	49.59	49.74	49.78	49.59	49.73	49.65	49.68	2.533E+03	1.194E+03	2.12
2	49.85	49.85	49.96	49.95	49.79	49.87	49.88	2.551E+03	1.174E+03	2.17
3	50.04	50.10	50.03	50.14	50.13	50.02	50.08	2.605E+03	1.168E+03	2.23
4	50.34	50.21	50.37	50.20	50.23	50.36	50.28	2.513E+03	1.097E+03	2.29
5	50.51	50.62	50.65	50.47	50.56	50.75	50.59	2.548E+03	1.037E+03	2.46

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.50	43.44	46.68	47.37	47.62	44.54	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	48.78	48.94	48.80	48.77	48.80	48.92	48.84	1.226E+03	9.560E+02	1.28
2	49.04	49.05	49.07	49.05	49.10	49.10	49.07	1.239E+03	9.031E+02	1.37
3	49.36	49.35	49.33	49.42	49.38	49.33	49.36	1.266E+03	8.317E+02	1.52
4	49.73	49.77	49.78	49.63	49.66	49.84	49.73	1.223E+03	6.989E+02	1.75
5	50.07	50.13	50.09	49.84	49.92	50.15	50.03	1.239E+03	6.505E+02	1.90

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.49	43.46	46.67	47.36	47.52	44.54	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	48.77	48.90	48.83	48.76	48.82	48.87	48.82	1.220E+03	9.214E+02	1.32
2	49.05	49.05	49.08	49.08	49.05	49.07	49.06	1.233E+03	8.694E+02	1.42
3	49.37	49.38	49.35	49.43	49.40	49.33	49.38	1.264E+03	7.966E+02	1.59
4	49.74	49.72	49.79	49.64	49.67	49.82	49.73	1.216E+03	6.774E+02	1.80
5	50.01	50.09	50.09	49.86	49.92	50.15	50.02	1.233E+03	6.348E+02	1.94

NOTE: 16 X-Y pairs were stored in plot data file PDSMD30

Dist number = 07

File name DSDM31

This data set taken on : 02-07-20 28:18

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.35	44.03	46.65	47.47	47.52	45.34	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	68.09	71.75	68.36	68.15	67.72	70.94	69.17	8.921E+04	4.217E+03	21.16
2	67.86	68.01	68.18	67.51	67.96	67.73	67.89	8.899E+04	4.510E+03	19.73
3	68.01	67.24	67.19	67.87	67.83	67.22	67.56	9.015E+04	4.681E+03	19.26

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.45	44.08	46.65	47.46	47.52	45.39	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	68.07	71.71	68.33	68.15	67.78	70.92	69.16	8.891E+04	4.203E+03	21.15
2	67.86	68.01	68.14	67.46	67.95	67.71	67.86	8.872E+04	4.502E+03	19.70
3	68.00	67.21	67.20	67.87	67.82	67.23	67.56	8.984E+04	4.666E+03	19.25

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.73	43.91	46.75	47.53	47.58	45.13	47.56

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	66.75	69.97	67.05	66.85	66.44	69.25	67.72	7.782E+04	3.950E+03	19.70
2	66.54	66.65	66.79	66.13	66.54	66.47	66.52	7.758E+04	4.225E+03	18.36
3	66.58	65.88	65.87	66.54	66.43	65.95	66.21	7.856E+04	4.389E+03	17.90

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.72	43.90	46.76	47.53	47.59	45.13	47.56

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	66.75	70.00	67.06	66.84	66.39	69.27	67.72	7.804E+04	3.962E+03	19.69
2	66.54	66.66	66.80	66.16	66.56	66.49	66.54	7.786E+04	4.238E+03	18.37
3	66.57	65.89	65.86	66.54	66.46	65.97	66.21	7.883E+04	4.404E+03	17.90

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.04	43.54	46.60	47.41	47.44	44.74	47.43

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	63.90	66.36	64.30	64.02	63.57	65.74	64.65	5.764E+04	3.417E+03	16.87
2	63.65	63.72	64.00	63.33	63.63	63.78	63.69	5.747E+04	3.647E+03	15.76
3	63.72	63.26	63.31	63.90	63.71	63.37	63.55	5.822E+04	3.763E+03	15.47

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.04	43.55	46.65	47.42	47.46	44.75	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	63.92	66.41	64.30	64.03	63.60	65.76	64.67	5.758E+04	3.411E+03	16.88
2	63.68	63.75	64.02	63.35	63.65	63.81	63.71	5.746E+04	3.643E+03	15.77
3	63.75	63.28	63.34	63.92	63.74	63.40	63.57	5.821E+04	3.759E+03	15.49

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.05	43.82	46.60	47.37	47.42	44.82	47.39			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	60.19	61.48	60.51	60.21	59.86	60.93	60.53	3.503E+04	2.716E+03	12.90
2	59.90	59.97	60.35	59.76	59.97	60.24	60.03	3.497E+04	2.854E+03	12.26
3	60.38	60.12	60.31	60.82	60.49	60.27	60.40	3.544E+04	2.841E+03	12.48

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.03	43.82	46.62	47.39	47.42	44.82	47.40			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	60.20	61.48	60.50	60.21	59.84	60.91	60.52	3.486E+04	2.706E+03	12.88
2	59.88	59.97	60.36	59.76	59.97	60.22	60.03	3.478E+04	2.841E+03	12.24
3	60.39	60.14	60.32	60.84	60.49	60.27	60.41	3.526E+04	2.825E+03	12.48

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.32	43.98	46.67	47.44	47.48	44.99	47.46			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	56.16	56.69	56.33	56.16	55.81	56.27	56.24	1.816E+04	2.106E+03	8.62
2	56.16	56.26	56.51	56.19	56.26	56.50	56.31	1.814E+04	2.120E+03	8.56
3	56.73	56.60	56.76	57.17	56.78	56.51	56.78	1.840E+04	2.074E+03	8.87

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.44	43.92	46.64	47.43	47.46	45.00	47.45			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	56.27	56.79	56.43	56.26	55.92	56.36	56.34	1.842E+04	2.108E+03	8.74
2	56.26	56.37	56.61	56.29	56.34	56.59	56.41	1.839E+04	2.123E+03	8.67
3	56.82	56.70	56.85	57.27	56.89	56.72	56.88	1.857E+04	2.077E+03	8.99

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.26	43.80	46.69	47.51	47.53	44.92	47.52			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.53	54.82	54.62	54.49	54.24	54.49	54.53	1.271E+04	1.845E+03	6.89
2	54.69	54.80	54.99	54.74	54.83	55.01	54.84	1.271E+04	1.800E+03	7.06
3	55.21	55.16	55.26	55.57	55.26	55.13	55.26	1.291E+04	1.760E+03	7.33

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.23	43.82	46.69	47.52	47.54	44.91	47.53			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	54.54	54.83	54.63	54.51	54.26	54.51	54.55	1.272E+04	1.845E+03	6.90
2	54.70	54.80	55.00	54.73	54.85	55.02	54.85	1.272E+04	1.802E+03	7.06
3	55.23	55.15	55.27	55.59	55.28	55.14	55.28	1.292E+04	1.760E+03	7.34

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.96	43.51	46.65	47.47	47.46	44.71	47.47

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.97	53.17	53.06	52.96	52.77	52.94	52.98	8.895E+03	1.644E+03	5.41
2	53.27	53.37	53.54	53.40	53.46	53.58	53.44	8.897E+03	1.553E+03	5.73
3	53.94	53.91	53.97	54.22	53.97	53.87	53.98	9.049E+03	1.478E+03	6.12

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.93	43.51	46.62	47.46	47.45	44.68	47.46

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	52.94	53.15	53.04	52.92	52.76	52.93	52.96	8.891E+03	1.646E+03	5.40
2	53.27	53.36	53.54	53.42	53.46	53.57	53.44	8.895E+03	1.556E+03	5.74
3	53.94	53.89	53.96	54.21	53.96	53.85	53.97	9.059E+03	1.476E+03	6.12

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.54	43.38	46.67	47.52	47.49	44.53	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	51.54	51.77	51.69	51.53	51.54	51.64	51.62	5.700E+03	1.415E+03	4.03
2	51.95	52.01	52.23	52.14	52.13	52.20	52.11	5.714E+03	1.306E+03	4.38
3	52.93	52.89	52.94	53.14	52.93	52.89	52.95	5.820E+03	1.146E+03	5.08

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.50	43.35	46.68	47.55	47.53	44.51	47.54

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	51.62	51.82	51.75	51.60	51.60	51.68	51.68	5.698E+03	1.407E+03	4.05
2	52.01	52.07	52.28	52.19	52.18	52.24	52.16	5.714E+03	1.301E+03	4.39
3	52.96	52.92	52.96	53.18	52.96	52.92	52.98	5.814E+03	1.147E+03	5.07

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.27	43.10	46.76	47.58	47.54	44.38	47.56

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	50.31	50.45	50.46	50.30	50.44	50.36	50.39	3.272E+03	1.188E+03	2.75
2	50.63	50.66	50.82	50.77	50.78	50.79	50.74	3.286E+03	1.109E+03	2.96
3	52.01	52.01	52.01	52.12	52.04	52.00	52.03	3.351E+03	8.150E+02	4.11

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.23	43.06	46.72	47.54	47.53	44.34	47.53

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	50.29	50.43	50.43	50.26	50.39	50.33	50.35	3.285E+03	1.189E+03	2.75
2	50.60	50.64	50.79	50.76	50.74	50.76	50.72	3.300E+03	1.113E+03	2.97
3	51.98	51.99	51.99	52.10	52.02	51.98	52.01	3.365E+03	8.174E+02	4.12

Data Set Number = 19

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
42.97	42.77	46.74	47.46	47.43	44.16	47.45

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	49.05	49.14	49.14	49.03	49.12	49.07	49.09	1.577E+03	9.937E+02	1.59
2	49.49	49.50	49.65	49.62	49.64	49.64	49.59	1.590E+03	8.200E+02	1.94
3	51.08	51.15	51.02	51.17	51.18	51.04	51.11	1.627E+03	4.917E+02	3.31

Data Set Number = 20

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
42.95	42.70	46.74	47.48	47.44	44.13	47.46

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	49.06	49.15	49.15	49.04	49.14	49.08	49.10	1.577E+03	9.964E+02	1.58
2	49.50	49.52	49.66	49.63	49.64	49.64	49.60	1.591E+03	8.231E+02	1.93
3	51.09	51.15	51.02	51.16	51.18	51.02	51.10	1.624E+03	4.933E+02	3.29

NOTE: 20 X-Y pairs were stored in plot data file POSHD031

Dist number = 07

File name DSMS32

This data set taken on 02 08-20-28 53

Data Set Number = 1

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
46.12	46.43	46.39	47.58	47.51	46.31	47.54

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	63.96	67.02	65.15	63.88	64.97	66.62	65.27	4.825E+04	2.771E+03	17.41
2	64.72	65.04	64.94	64.31	64.88	64.54	64.74	4.815E+04	2.876E+03	16.74
3	64.27	64.30	64.38	64.79	64.48	63.96	64.36	4.879E+04	3.008E+03	16.22
4	65.75	66.65	66.65	65.87	65.53	67.23	66.28	4.723E+04	2.624E+03	18.00
5	67.76	67.49	66.52	65.83	67.44	67.70	67.12	4.793E+04	2.564E+03	18.70

Data Set Number = 2

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
46.36	46.49	46.45	47.60	47.54	46.43	47.57

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	63.98	67.04	65.13	63.86	64.99	66.63	65.27	4.852E+04	2.790E+03	17.39
2	64.72	65.04	64.94	64.31	64.88	64.53	64.74	4.842E+04	2.897E+03	16.71
3	64.27	64.32	64.37	64.79	64.49	63.97	64.37	4.904E+04	3.027E+03	16.20
4	65.77	66.65	66.65	65.88	65.54	67.25	66.29	4.746E+04	2.639E+03	17.98
5	67.79	67.52	66.55	65.84	67.47	67.73	67.15	4.814E+04	2.575E+03	18.69

Data Set Number = 3

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
46.17	46.20	46.03	47.46	47.42	46.13	47.44

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	60.10	62.13	61.09	60.01	60.76	61.76	60.98	3.195E+04	2.400E+03	13.31
2	60.61	60.80	61.03	60.53	60.66	60.72	60.72	3.191E+04	2.470E+03	12.92
3	60.36	60.55	60.64	60.96	60.73	60.31	60.59	3.234E+04	2.559E+03	12.64
4	61.67	62.18	62.05	61.41	61.24	62.67	61.87	3.128E+04	2.270E+03	13.78
5	63.01	63.14	62.35	62.00	63.01	63.35	62.81	3.174E+04	2.178E+03	14.57

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.61	46.35	46.07	47.46	47.42	46.01	47.44

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	60.09	62.15	61.08	60.02	60.76	61.78	60.98	3.206E+04	2.408E+03	13.32
2	60.62	60.80	61.03	60.52	60.68	60.75	60.73	3.200E+04	2.475E+03	12.93
3	60.34	60.56	60.64	60.96	60.73	60.31	60.59	3.245E+04	2.568E+03	12.64
4	61.66	62.19	62.04	61.41	61.24	62.67	61.87	3.140E+04	2.279E+03	13.78
5	63.01	63.13	62.39	61.96	63.00	63.39	62.81	3.183E+04	2.184E+03	14.57

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.16	44.06	46.58	47.43	47.37	45.27	47.40

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.38	56.63	56.18	55.33	55.81	56.28	55.94	1.659E+04	1.976E+03	8.39
2	55.76	55.84	56.29	56.02	55.85	56.11	55.98	1.657E+04	1.999E+03	8.29
3	56.00	56.18	56.16	56.45	56.30	55.99	56.18	1.681E+04	2.014E+03	8.35
4	56.82	57.04	56.86	56.39	56.33	57.42	56.81	1.627E+04	1.841E+03	8.84
5	57.82	58.13	57.53	57.01	57.47	58.13	57.68	1.650E+04	1.726E+03	9.56

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
45.15	44.07	46.55	47.40	47.36	45.26	47.38

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.34	56.59	56.13	55.28	55.78	56.25	55.90	1.656E+04	1.977E+03	8.37
2	55.74	55.82	56.25	55.99	55.82	56.07	55.95	1.654E+04	1.996E+03	8.28
3	55.96	56.16	56.15	56.41	56.27	55.97	56.15	1.678E+04	2.011E+03	8.34
4	56.80	57.01	56.82	56.35	56.28	57.38	56.77	1.624E+04	1.841E+03	8.82
5	57.76	58.05	57.49	56.96	57.43	58.09	57.63	1.647E+04	1.728E+03	9.53

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.85	44.25	46.71	47.54	47.49	45.27	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.52	54.47	54.21	53.46	53.88	54.18	53.96	1.141E+04	1.804E+03	6.33
2	53.96	54.01	54.46	54.27	54.07	54.28	54.17	1.141E+04	1.783E+03	6.40
3	54.33	54.52	54.46	54.66	54.57	54.35	54.48	1.160E+04	1.768E+03	6.56
4	54.93	55.21	54.93	54.54	54.51	55.32	54.87	1.122E+04	1.646E+03	6.81
5	55.70	55.95	55.50	55.03	55.36	55.97	55.60	1.137E+04	1.538E+03	7.39

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.82	44.24	46.71	47.53	47.49	45.26	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.52	54.52	54.18	53.47	53.93	54.26	53.98	1.138E+04	1.790E+03	6.36
2	53.98	54.02	54.45	54.26	54.08	54.28	54.18	1.139E+04	1.777E+03	6.41
3	54.34	54.51	54.46	54.67	54.58	54.35	54.48	1.158E+04	1.761E+03	6.57
4	54.92	55.02	54.91	54.54	54.51	55.33	54.87	1.119E+04	1.642E+03	6.82
5	55.68	55.94	55.54	55.04	55.35	55.96	55.59	1.135E+04	1.536E+03	7.39

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.22	44.24	46.64	47.52	47.45	45.03	47.49

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.20	52.88	52.73	52.16	52.56	52.69	52.54	8.136E+03	1.642E+03	4.95
2	52.64	52.68	53.01	52.91	52.65	52.83	52.79	8.150E+03	1.610E+03	5.06
3	52.99	53.17	53.06	53.23	53.21	53.00	53.11	8.288E+03	1.582E+03	5.24
4	53.40	53.40	53.46	53.15	53.13	53.69	53.38	8.008E+03	1.491E+03	5.37
5	54.01	54.20	53.98	53.50	53.73	54.27	53.95	8.121E+03	1.403E+03	5.79

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.23	44.26	46.66	47.55	47.47	45.05	47.51

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.22	52.89	52.74	52.16	52.54	52.69	52.54	8.096E+03	1.641E+03	4.94
2	52.64	52.67	53.03	52.92	52.66	52.83	52.79	8.105E+03	1.607E+03	5.04
3	52.99	53.16	53.06	53.21	53.20	53.01	53.10	8.243E+03	1.582E+03	5.21
4	53.49	53.40	53.47	53.13	53.11	53.69	53.38	7.969E+03	1.491E+03	5.35
5	54.00	54.21	53.97	53.49	53.73	54.26	53.94	8.081E+03	1.402E+03	5.76

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.59	44.40	46.59	47.53	47.46	45.19	47.50

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.04	51.38	51.27	51.03	51.18	51.24	51.19	5.231E+03	1.449E+03	3.61
2	51.30	51.26	51.48	51.50	51.27	51.38	51.37	5.246E+03	1.439E+03	3.65
3	51.66	51.84	51.70	51.82	51.65	51.64	51.75	5.338E+03	1.373E+03	3.89
4	52.08	51.93	52.08	51.79	51.78	52.17	51.97	5.159E+03	1.302E+03	3.96
5	52.38	52.55	52.44	52.06	52.20	52.63	52.38	5.233E+03	1.239E+03	4.22

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.56	44.35	46.58	47.51	47.45	45.16	47.48

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.06	51.33	51.25	51.04	51.13	51.20	51.17	5.168E+03	1.432E+03	3.61
2	51.29	51.32	51.51	51.45	51.24	51.34	51.36	5.184E+03	1.418E+03	3.66
3	51.61	51.81	51.67	51.77	51.84	51.63	51.72	5.288E+03	1.365E+03	3.87
4	52.05	51.87	52.06	51.77	51.78	52.10	51.94	5.105E+03	1.292E+03	3.95
5	52.31	52.49	52.42	52.04	52.18	52.60	52.34	5.173E+03	1.230E+03	4.21

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
44.36	44.22	46.46	47.39	47.42	45.02	47.40

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	49.70	49.83	49.84	49.69	49.76	49.74	49.76	2.912E+03	1.273E+03	2.29
2	50.02	50.02	50.21	50.19	50.00	50.09	50.09	2.920E+03	1.185E+03	2.47
3	50.25	50.36	50.24	50.36	50.38	50.22	50.30	2.985E+03	1.175E+03	2.54
4	50.54	50.38	50.57	50.35	50.37	50.55	50.46	2.885E+03	1.129E+03	2.56
5	50.64	50.78	50.80	50.57	50.65	50.91	50.72	2.922E+03	1.092E+03	2.68

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
44.33	44.17	46.44	47.39	47.40	44.98	47.39

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	49.68	49.82	49.82	49.67	49.75	49.74	49.75	2.911E+03	1.276E+03	2.28
2	50.01	50.02	50.23	50.20	50.02	50.09	50.10	2.927E+03	1.177E+03	2.49
3	50.27	50.38	50.24	50.38	50.43	50.23	50.32	2.988E+03	1.163E+03	2.57
4	50.57	50.40	50.59	50.36	50.38	50.53	50.47	2.885E+03	1.120E+03	2.58
5	50.64	50.75	50.80	50.56	50.66	50.92	50.72	2.922E+03	1.090E+03	2.68

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
44.11	44.08	46.66	47.40	47.60	44.95	47.50

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	48.95	49.01	49.01	48.95	48.99	48.96	48.98	1.392E+03	9.840E+02	1.41
2	49.32	49.33	49.35	49.37	49.26	49.30	49.32	1.404E+03	8.700E+02	1.61
3	49.70	49.74	49.66	49.77	49.77	49.66	49.72	1.439E+03	7.712E+02	1.87
4	50.04	49.98	50.08	49.88	49.90	50.06	49.99	1.386E+03	6.949E+02	2.00
5	50.17	50.25	50.31	50.05	50.12	50.36	50.21	1.405E+03	6.781E+02	2.07

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
44.09	44.01	46.64	47.38	47.57	44.91	47.48

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	48.94	49.05	49.00	48.93	49.00	48.99	48.99	1.391E+03	9.598E+02	1.45
2	49.28	49.28	49.33	49.36	49.26	49.25	49.29	1.406E+03	8.722E+02	1.61
3	49.62	49.70	49.59	49.67	49.74	49.60	49.65	1.437E+03	7.858E+02	1.83
4	50.00	49.89	50.01	49.80	49.82	50.01	49.92	1.384E+03	7.092E+02	1.95
5	50.10	50.20	50.27	50.00	50.06	50.31	50.16	1.405E+03	6.873E+02	2.04

NOTE 16 x-Y pairs were stored in plot data file PDSMD32

Dist number = 08

File name DSM033

This data set taken on 02 08 21 22 53

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
43.57	43.56	46.62	47.50	47.53	44.58	47.51

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	66.52	72.26	68.85	68.66	68.34	71.40	69.67	9.365E+04	4.333E+03	21.62
2	68.42	68.55	69.56	67.74	69.27	68.06	68.27	9.345E+04	4.656E+03	20.07
3	68.41	67.61	67.49	66.22	68.12	67.45	67.88	9.463E+04	4.844E+03	19.53
4	69.36	70.69	71.17	69.09	69.67	72.07	70.17	9.159E+04	4.221E+03	21.70
5	73.77	72.01	71.25	69.38	72.99	72.83	72.04	9.291E+04	3.968E+03	23.41

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.59	43.57	46.62	47.49	47.53	44.59	47.51			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	68.54	72.23	68.82	68.69	68.39	71.37	69.67	9.335E+04	4.318E+03	21.62
2	68.39	68.55	68.52	67.77	68.32	68.05	68.27	9.319E+04	4.643E+03	20.07
3	68.35	67.59	67.46	68.18	68.09	67.39	67.84	9.438E+04	4.841E+03	19.50
4	69.31	70.63	71.12	69.05	68.61	72.03	70.12	9.132E+04	4.218E+03	21.65
5	73.73	72.00	71.21	69.34	72.95	72.78	72.00	9.261E+04	3.962E+03	23.38

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.88	43.48	46.62	47.50	47.52	44.66	47.51			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	66.31	69.32	66.64	66.48	66.11	68.60	67.24	7.577E+04	3.929E+03	19.28
2	66.06	66.13	66.28	65.52	65.94	65.93	65.98	7.561E+04	4.230E+03	17.88
3	65.92	65.30	65.19	65.88	65.78	65.26	65.56	7.654E+04	4.423E+03	17.30
4	67.02	67.81	68.30	66.68	66.39	69.08	67.55	7.406E+04	3.864E+03	19.16
5	70.44	68.89	68.51	67.04	70.00	69.83	69.12	7.517E+04	3.651E+03	20.59

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.90	43.51	46.62	47.49	47.52	44.68	47.50			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	66.33	69.34	66.65	66.51	66.03	68.61	67.25	7.583E+04	3.930E+03	19.30
2	66.06	66.14	66.29	65.53	65.91	65.93	65.98	7.567E+04	4.232E+03	17.88
3	65.92	65.29	65.21	65.88	65.79	65.26	65.56	7.659E+04	4.424E+03	17.31
4	67.01	67.80	68.29	66.69	66.40	69.11	67.55	7.411E+04	3.865E+03	19.17
5	70.43	68.87	68.50	67.04	70.01	69.82	69.11	7.520E+04	3.653E+03	20.59

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.21	43.96	46.65	47.49	47.52	44.94	47.51			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	63.39	65.62	63.82	63.54	63.09	64.99	64.08	5.384E+04	3.316E+03	16.23
2	63.11	63.15	63.44	62.73	62.98	63.18	63.10	5.372E+04	3.555E+03	15.11
3	62.90	62.47	62.40	63.06	62.89	62.51	62.71	5.442E+04	3.734E+03	14.57
4	64.11	64.38	64.80	63.74	63.57	65.44	64.34	5.267E+04	3.277E+03	16.07
5	66.56	65.50	65.24	64.22	65.42	66.36	65.72	5.344E+04	3.089E+03	17.30

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.25	43.92	46.65	47.49	47.51	44.94	47.50			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	63.37	65.56	63.82	63.52	63.09	64.97	64.06	5.390E+04	3.323E+03	16.22
2	63.08	63.13	63.42	62.71	63.01	63.18	63.09	5.380E+04	3.561E+03	15.11
3	62.88	62.45	62.40	63.04	62.88	62.48	62.69	5.448E+04	3.742E+03	14.56
4	64.08	64.38	64.77	63.72	63.56	65.42	64.32	5.270E+04	3.282E+03	16.06
5	66.54	65.49	65.23	64.19	66.39	66.36	65.70	5.347E+04	3.093E+03	17.29

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.63	44.16	46.69	47.51	47.53	45.16	47.52			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	59.72	60.93	60.06	59.79	59.50	60.44	60.08	3.215E+04	2.508E+03	12.33
2	59.40	59.49	59.81	59.23	59.36	59.65	59.49	3.210E+04	2.767E+03	11.60
3	59.10	58.98	58.96	59.55	59.30	58.97	59.14	3.252E+04	2.927E+03	11.11
4	60.32	60.59	60.57	60.11	60.04	61.27	60.48	3.145E+04	2.554E+03	12.31
5	62.12	61.76	61.49	60.83	62.19	62.47	61.81	3.194E+04	2.367E+03	13.49

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.63	44.19	46.69	47.51	47.54	45.17	47.53			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	59.76	60.93	60.09	59.79	59.45	60.45	60.08	3.213E+04	2.606E+03	12.33
2	59.41	59.50	59.82	59.25	59.42	59.66	59.51	3.206E+04	2.761E+03	11.61
3	59.12	59.99	59.99	59.57	59.31	58.99	59.16	3.251E+04	2.923E+03	11.12
4	60.36	60.61	60.61	60.15	60.10	61.29	60.52	3.143E+04	2.548E+03	12.34
5	62.15	61.80	61.52	60.84	62.20	62.50	61.84	3.192E+04	2.363E+03	13.51

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.41	43.97	46.67	47.48	47.51	45.02	47.49			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.83	56.37	56.02	55.77	55.61	56.02	55.94	1.659E+04	1.999E+03	8.30
2	55.78	55.87	56.05	55.75	55.86	56.03	55.89	1.657E+04	2.044E+03	8.11
3	55.68	55.68	55.75	56.09	55.85	55.67	55.79	1.681E+04	2.139E+03	7.86
4	56.67	56.65	56.71	56.61	56.66	57.26	56.80	1.626E+04	1.863E+03	8.73
5	57.62	57.87	57.70	57.20	57.86	58.37	57.80	1.651E+04	1.721E+03	9.59

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.41	43.95	46.69	47.49	47.52	45.02	47.50			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	55.78	55.34	55.96	55.74	55.57	55.99	55.90	1.659E+04	2.011E+03	8.25
2	55.75	55.83	56.03	55.71	55.61	55.87	55.85	1.657E+04	2.056E+03	8.08
3	55.65	55.64	55.72	56.07	55.83	55.64	55.76	1.682E+04	2.150E+03	7.82
4	56.64	56.82	56.71	56.57	56.62	57.25	56.77	1.626E+04	1.871E+03	8.69
5	57.80	57.85	57.68	57.19	57.83	58.34	57.78	1.650E+04	1.726E+03	9.56

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	44.02	43.69	46.67	47.42	47.48	44.80	47.44			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.77	54.19	53.91	53.72	53.63	53.96	53.86	1.103E+04	1.748E+03	6.31
2	53.99	54.09	54.24	54.07	54.08	54.22	54.10	1.103E+04	1.721E+03	6.41
3	54.10	54.11	54.19	54.45	54.19	54.12	54.19	1.121E+04	1.764E+03	6.35
4	54.86	55.21	54.87	54.64	54.89	55.33	54.97	1.023E+04	1.550E+03	6.99
5	55.80	55.83	55.82	55.36	55.77	55.29	55.03	1.099E+04	1.426E+03	7.71

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.99	43.65	46.67	47.42	47.46	44.77	47.44			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	53.79	54.19	53.91	53.73	53.62	53.95	53.86	1.101E+04	1.744E+03	6.32
2	53.98	54.02	54.24	54.07	54.07	54.21	54.10	1.101E+04	1.719E+03	6.41
3	54.12	54.11	54.18	54.48	54.21	54.11	54.20	1.119E+04	1.759E+03	6.36
4	54.87	55.02	54.88	54.84	54.90	55.34	54.97	1.081E+04	1.546E+03	6.99
5	55.83	55.95	55.81	55.36	55.75	56.29	55.83	1.097E+04	1.423E+03	7.71

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.75	43.49	46.73	47.47	47.51	44.66	47.49			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.57	52.94	52.71	52.53	52.52	52.78	52.67	7.761E+03	1.525E+03	5.09
2	52.83	52.90	53.11	52.99	53.02	53.09	52.99	7.768E+03	1.477E+03	5.26
3	53.19	53.18	53.22	53.46	53.22	53.14	53.23	7.902E+03	1.474E+03	5.36
4	53.81	53.92	53.83	53.80	53.82	54.15	53.89	7.628E+03	1.299E+03	5.87
5	54.66	54.79	54.68	54.26	54.55	55.05	54.66	7.742E+03	1.191E+03	6.50

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.75	43.50	46.74	47.48	47.53	44.66	47.51			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	52.64	52.94	52.75	52.58	52.52	52.79	52.70	7.773E+03	1.524E+03	5.10
2	52.87	52.91	53.10	52.98	53.01	53.10	52.99	7.779E+03	1.483E+03	5.25
3	53.20	53.17	53.23	53.45	53.23	53.15	53.24	7.918E+03	1.481E+03	5.35
4	53.82	53.94	53.84	53.81	53.83	54.16	53.90	7.646E+03	1.304E+03	5.87
5	54.66	54.80	54.67	54.26	54.53	55.04	54.66	7.758E+03	1.197E+03	6.48

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.50	43.24	46.76	47.53	47.55	44.51	47.54			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.29	51.63	51.43	51.24	51.37	51.55	51.42	4.748E+03	1.249E+03	3.80
2	51.52	51.57	51.75	51.68	51.76	51.77	51.67	4.759E+03	1.216E+03	3.91
3	52.08	52.15	52.13	52.27	52.20	52.06	52.15	4.852E+03	1.144E+03	4.24
4	52.63	52.67	52.68	52.55	52.59	52.81	52.65	4.683E+03	1.017E+03	4.60
5	53.43	53.56	53.53	53.13	53.34	53.77	53.46	4.750E+03	9.021E+02	5.27

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	43.51	43.20	46.81	47.55	47.58	44.51	47.57			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	51.31	51.66	51.45	51.29	51.41	51.57	51.45	4.759E+03	1.252E+03	3.80
2	51.55	51.62	51.78	51.71	51.80	51.80	51.71	4.775E+03	1.217E+03	3.92
3	52.11	52.20	52.17	52.30	52.23	52.10	52.18	4.866E+03	1.145E+03	4.25
4	52.67	52.71	52.71	52.60	52.62	52.85	52.69	4.695E+03	1.018E+03	4.61
5	53.47	53.60	53.57	53.15	53.37	53.82	53.50	4.762E+03	9.028E+02	5.27

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.31	43.04	46.74	47.49	47.48	44.36	47.49

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	49.96	50.30	50.11	49.94	50.12	50.25	50.11	2.602E+03	1.016E+03	2.56
2	50.26	50.29	50.46	50.41	50.45	50.45	50.39	2.617E+03	9.728E+02	2.69
3	50.94	51.02	50.94	51.08	51.04	50.88	50.99	2.670E+03	8.490E+02	3.14
4	51.23	51.27	51.27	51.18	51.20	51.34	51.25	2.576E+03	7.898E+02	3.26
5	52.31	52.42	52.42	52.13	52.27	52.55	52.35	2.612E+03	6.192E+02	4.22

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.32	43.00	46.76	47.51	47.50	44.36	47.50

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	49.99	50.33	50.16	49.95	50.15	50.28	50.15	2.600E+03	1.009E+03	2.58
2	50.27	50.31	50.47	50.43	50.48	50.46	50.40	2.615E+03	9.718E+02	2.69
3	50.97	51.03	50.95	51.10	51.05	50.90	51.00	2.671E+03	8.501E+02	3.14
4	51.24	51.29	51.29	51.18	51.20	51.36	51.26	2.576E+03	7.903E+02	3.26
5	52.31	52.43	52.42	52.12	52.26	52.57	52.35	2.612E+03	6.211E+02	4.20

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.07	43.00	46.76	47.43	47.44	44.27	47.43

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	48.91	49.13	49.00	48.89	49.01	49.12	49.01	1.232E+03	8.113E+02	1.52
2	49.23	49.25	49.38	49.36	49.40	49.43	49.34	1.244E+03	7.308E+02	1.70
3	49.85	49.85	49.82	49.92	49.86	49.80	49.65	1.273E+03	6.158E+02	2.07
4	50.20	50.24	50.25	50.25	50.29	50.27	50.25	1.225E+03	5.272E+02	2.32
5	51.38	51.48	51.50	51.15	51.24	51.57	51.39	1.243E+03	3.750E+02	3.32

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
43.00	43.00	46.74	47.44	47.43	44.25	47.44

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	48.87	49.12	48.97	48.85	48.95	49.08	48.97	1.234E+03	6.374E+02	1.47
2	49.19	49.20	49.33	49.31	49.34	49.35	49.29	1.245E+03	7.573E+02	1.64
3	49.77	49.76	49.74	49.84	49.80	49.72	49.76	1.274E+03	6.411E+02	1.99
4	50.15	50.18	50.18	50.16	50.17	50.22	50.18	1.228E+03	5.472E+02	2.24
5	51.40	51.51	51.51	51.15	51.27	51.57	51.41	1.245E+03	3.739E+02	3.33

NOTE 20 -> y pairs were stored in plot data file PD5MD33

## R-114 DATA SETS

Disk number = 08

File name: DSM034

This data set taken on : 02:13:13:23 48

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
17.28	16.22	1.59	2.15	2.27	11.70	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	20.82	23.73	19.95	20.49	20.38	22.84	21.37	9.739E+04	5.237E+03	18.60

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
17.27	16.17	1.59	2.15	2.28	11.68	2.22

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	20.83	23.76	20.05	20.50	20.44	22.82	21.40	9.727E+04	5.223E+03	18.62

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
17.11	15.73	1.60	2.17	2.31	11.48	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	19.84	21.97	18.99	19.55	19.32	21.11	20.13	8.013E+04	4.600E+03	17.42

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
17.10	15.73	1.61	2.17	2.29	11.48	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	19.83	21.95	19.00	19.56	19.31	21.11	20.13	8.024E+04	4.606E+03	17.42

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.97	15.96	1.65	2.20	2.33	11.53	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	17.71	18.77	17.10	17.45	17.15	18.15	17.72	4.918E+04	3.248E+03	15.14

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.96	16.00	1.64	2.21	2.33	11.53	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	17.72	18.77	17.12	17.46	17.19	18.16	17.74	4.904E+04	3.236E+03	15.15

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.77	16.13	1.54	2.16	2.25	11.48	2.21

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.09	15.57	14.88	14.88	14.70	15.09	15.04	2.909E+04	2.305E+03	12.62	

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.76	16.13	1.54	2.16	2.26	11.48	2.21

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.08	15.58	14.88	14.87	14.72	15.10	15.04	2.902E+04	2.299E+03	12.62	

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.62	16.10	1.59	2.24	2.24	11.44	2.24

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	11.28	11.46	11.28	11.21	11.12	11.12	11.24	1.370E+04	1.544E+03	8.88	

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.64	16.09	1.59	2.23	2.23	11.43	2.23

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	11.26	11.45	11.25	11.20	11.13	11.13	11.24	1.369E+04	1.543E+03	8.88	

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.50	16.05	1.83	2.00	2.00	11.47	2.21

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.94	9.94	9.89	9.89	9.80	9.70	9.86	9.673E+03	1.283E+03	7.54	

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.50	16.04	1.90	2.21	2.16	11.49	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.90	9.92	9.90	9.89	9.79	9.69	9.85	9.673E+03	1.282E+03	7.55	

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.41	15.95	1.49	2.21	2.15	11.29	2.18

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.91	8.78	8.93	8.89	8.87	8.61	8.83	6.510E+03	9.918E+02	6.56	

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.42	15.95	1.49	2.21	2.16	11.28	2.18

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.93	8.81	8.96	8.93	8.92	8.63	8.86	6.547E+03	9.931E+02	6.59

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.27	15.81	2.31	2.22	2.30	11.46	2.26

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.78	7.65	7.85	7.78	7.82	7.52	7.73	3.874E+03	7.182E+02	5.39

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.27	15.80	2.36	2.22	2.28	11.48	2.25

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.80	7.61	7.83	7.79	7.82	7.47	7.72	3.877E+03	7.190E+02	5.39

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.21	15.74	2.44	2.13	2.38	11.46	2.26

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.49	6.38	6.71	6.51	6.69	6.29	6.51	1.837E+03	4.385E+02	4.19

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.20	15.73	2.48	2.11	2.33	11.47	2.22

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.46	6.36	6.67	6.48	6.64	6.27	6.48	1.838E+03	4.386E+02	4.19

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.13	15.63	1.21	2.15	2.28	10.99	2.21

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.30	5.27	5.60	5.32	5.59	5.24	5.39	8.806E+02	2.830E+02	3.11

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.10	15.62	1.29	2.20	2.30	11.05	2.25

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.33	5.30	5.62	5.35	5.63	5.25	5.41	8.796E+02	2.833E+02	3.10

NOTE 20 X-Y pairs were stored in plot data file PD5MD34

Disk number = 08  
 File name: DSM035  
 This data set taken on : 02:13:14:47:29

Data Set Number = 1

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.92	14.33	1.56	2.11	2.20	10.60	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	20.46	22.91	19.45	20.08	19.87	21.94	20.78	9.215E+04	5.092E+03	18.10
2	19.17	19.24	19.58	18.56	19.41	19.31	19.21	9.195E+04	5.608E+03	16.40

Data Set Number = 2

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.90	14.24	1.57	2.12	2.21	10.57	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	20.46	22.90	19.45	20.09	19.89	21.95	20.79	9.198E+04	5.083E+03	18.09
2	19.15	19.23	19.58	18.55	19.41	19.30	19.21	9.178E+04	5.603E+03	16.38

Data Set Number = 3

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.72	13.67	1.61	2.18	2.25	10.34	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.50	21.39	18.68	19.20	18.96	20.63	19.73	7.493E+04	4.390E+03	17.07
2	18.06	18.12	18.50	17.57	18.22	18.22	18.12	7.477E+04	4.878E+03	15.33

Data Set Number = 4

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.71	13.62	1.60	2.18	2.24	10.31	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.50	21.39	18.66	19.20	18.98	20.62	19.72	7.491E+04	4.386E+03	17.07
2	18.05	18.11	18.49	17.55	18.24	18.20	18.11	7.473E+04	4.876E+03	15.33

Data Set Number = 5

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.41	13.13	1.71	2.28	2.32	10.08	2.30

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.99	19.23	17.45	17.72	17.62	18.63	18.09	5.200E+04	3.428E+03	15.46
2	16.59	16.66	17.02	16.24	16.74	16.76	16.67	5.288E+04	3.802E+03	13.91

Data Set Number = 6

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.39	13.10	1.72	2.29	2.32	10.07	2.30

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	18.02	19.23	17.47	17.74	17.62	18.65	18.11	5.304E+04	3.429E+03	15.47
2	16.56	16.64	17.03	16.25	16.75	16.75	16.67	5.294E+04	3.807E+03	13.90

Data Set Number = 7

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	15.15	13.37	1.60	2.18	2.19	10.04	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	14.98	15.72	14.94	14.89	14.66	15.23	15.07	3.185E+04	2.515E+03	12.66
2	14.53	14.65	14.89	14.34	14.67	14.70	14.63	3.180E+04	2.629E+03	12.09

Data Set Number = 8

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	15.13	13.41	1.60	2.19	2.19	10.05	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	15.01	15.69	14.96	14.91	14.62	15.22	15.07	3.178E+04	2.511E+03	12.66
2	14.53	14.63	14.89	14.33	14.65	14.69	14.62	3.173E+04	2.627E+03	12.08

Data Set Number = 9

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	14.85	13.89	1.51	2.19	2.11	10.08	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.24	11.67	11.43	11.23	11.14	11.34	11.34	1.646E+04	1.819E+03	9.05
2	11.77	11.88	11.92	11.69	11.67	11.80	11.79	1.644E+04	1.756E+03	9.37

Data Set Number = 10

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	14.83	13.92	1.51	2.19	2.10	10.09	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	11.25	11.68	11.44	11.25	11.15	11.35	11.35	1.644E+04	1.814E+03	9.06
2	11.76	11.89	11.93	11.69	11.66	11.79	11.79	1.642E+04	1.753E+03	9.37

Data Set Number = 11

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	14.73	14.01	1.48	2.21	2.10	10.07	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.37	9.75	9.62	9.32	9.44	9.52	9.50	1.084E+04	1.498E+03	7.24
2	10.25	10.35	10.30	10.17	10.15	10.28	10.25	1.083E+04	1.379E+03	7.85

Data Set Number = 12

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	14.72	14.00	1.48	2.21	2.10	10.07	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.37	9.77	9.64	9.36	9.47	9.52	9.52	1.083E+04	1.492E+03	7.26
2	10.25	10.34	10.30	10.17	10.14	10.26	10.24	1.083E+04	1.380E+03	7.85

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.63	13.98	1.50	2.19	2.19	10.03	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.13	8.43	8.34	8.06	8.25	8.26	8.25	7.621E+03	1.2779E+03	5.96
2	9.41	9.44	9.42	9.29	9.27	9.38	9.37	7.631E+03	1.097E+03	6.95

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.62	13.97	1.49	2.20	2.22	10.03	2.21

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.15	8.44	8.37	8.09	8.28	8.27	8.27	7.615E+03	1.277E+03	5.96
2	9.42	9.45	9.44	9.30	9.28	9.39	9.38	7.625E+03	1.098E+03	6.94

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.55	13.93	1.46	2.17	2.18	9.98	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.54	6.89	6.73	6.47	6.72	6.79	6.69	4.629E+03	1.043E+03	4.44
2	8.37	8.39	8.38	8.27	8.21	8.31	8.32	4.639E+03	7.810E+02	5.94

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.53	13.92	1.46	2.16	2.18	9.97	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.56	6.87	6.75	6.48	6.72	6.76	6.69	4.621E+03	1.041E+03	4.44
2	8.41	8.41	8.40	8.31	8.21	8.32	8.34	4.635E+03	7.771E+02	5.96

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.47	13.88	1.52	2.17	2.18	9.96	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.22	5.50	5.41	5.19	5.44	5.45	5.37	2.508E+03	8.034E+02	3.12
2	7.37	7.36	7.45	7.38	7.34	7.42	7.39	2.522E+03	5.030E+02	5.01

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.47	13.88	1.62	2.18	2.18	9.99	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.24	5.50	5.42	5.20	5.45	5.45	5.38	2.506E+03	8.018E+02	3.13
2	7.35	7.37	7.45	7.40	7.35	7.42	7.39	2.520E+03	5.030E+02	5.01

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.40	13.84	1.69	2.21	2.18	9.98	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.25	4.46	4.37	4.25	4.42	4.42	4.36	1.160E+03	5.506E+02	2.11
2	6.12	6.11	6.37	6.36	6.16	6.20	6.22	1.171E+03	3.054E+02	3.83

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.40	13.83	1.62	2.20	2.18	10.02	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.25	4.46	4.36	4.24	4.40	4.45	4.36	1.160E+03	5.495E+02	2.11
2	6.10	6.10	6.36	6.35	6.16	6.21	6.21	1.171E+03	3.058E+02	3.83

NOTE: 20 X-Y pairs were stored in plot data file PDSMD35

Dist number = 08

File name: D5MD36

This data set taken on : 02:13:15 57:59

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.03	13.03	1.59	2.15	2.20	9.55	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	20.37	22.73	19.38	19.98	19.82	21.78	20.69	9.006E+04	5.010E+03	17.98
2	19.00	19.14	19.42	18.47	19.31	19.14	19.08	8.987E+04	5.529E+03	16.25
3	18.82	18.51	18.85	18.76	18.66	18.35	18.66	9.098E+04	5.797E+03	15.69

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.01	13.01	1.58	2.14	2.18	9.53	2.16

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	20.38	22.73	19.37	19.99	19.78	21.78	20.67	9.003E+04	5.005E+03	17.99
2	19.00	19.13	19.41	18.47	19.30	19.13	19.07	8.988E+04	5.527E+03	16.26
3	18.79	18.50	18.85	18.75	18.66	18.31	18.64	9.099E+04	5.797E+03	15.70

Data Set Number = 3

Tv1	Tv2	Tv2	Tld1	Tld2	Tvav	Tldav
13.91	13.10	1.62	2.21	2.23	9.55	2.22

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.53	21.41	18.70	19.20	18.95	20.64	19.74	7.421E+04	4.345E+03	17.08
2	18.01	18.13	18.45	17.59	18.25	18.19	18.10	7.405E+04	4.835E+03	15.31
3	17.68	17.49	17.60	17.73	17.59	17.32	17.60	7.499E+04	5.108E+03	14.68

Data Set Number = 4

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
13.90	13.11	1.62	2.19	2.22	9.54	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.49 21.40 18.66 19.16 18.96 20.62	19.72	7.445E+04	4.363E+03	17.06
2	18.02 18.13 18.44 17.58 18.23 18.17	18.09	7.427E+04	4.849E+03	15.32
3	17.64 17.46 17.80 17.73 17.57 17.28	17.58	7.523E+04	5.129E+03	14.67

Data Set Number = 5

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
13.76	12.30	1.60	2.20	2.20	9.22	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.91 19.19 17.37 17.61 17.40 18.60	18.01	5.312E+04	3.432E+03	15.48
2	16.42 16.49 16.82 16.08 16.59 16.62	16.50	5.302E+04	3.831E+03	13.84
3	15.83 15.84 16.17 16.11 15.90 15.70	15.93	5.270E+04	4.090E+03	13.13

Data Set Number = 6

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
13.76	12.20	1.59	2.19	2.20	9.18	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.90 19.17 17.37 17.62 17.38 18.59	18.00	5.302E+04	3.425E+03	15.48
2	16.41 16.47 16.81 16.07 16.57 16.61	16.49	5.287E+04	3.820E+03	13.84
3	15.82 15.80 16.17 16.08 15.90 15.67	15.91	5.353E+04	4.080E+03	13.12

Data Set Number = 7

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
13.60	11.41	1.65	2.27	2.26	8.89	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.13 15.91 15.05 14.99 14.78 15.42	15.22	3.261E+04	2.563E+03	12.72
2	14.32 14.45 14.70 14.13 14.43 14.53	14.43	3.256E+04	2.758E+03	11.81
3	13.62 13.82 14.25 14.10 13.91 13.75	13.91	3.300E+04	2.959E+03	11.15

Data Set Number = 8

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
13.60	11.26	1.67	2.28	2.27	8.88	2.28

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.13 15.90 15.07 14.99 14.60 15.42	15.22	3.264E+04	2.568E+03	12.71
2	14.32 14.45 14.69 14.10 14.43 14.53	14.42	3.258E+04	2.763E+03	11.79
3	13.60 13.81 14.27 14.12 13.91 13.76	13.91	3.303E+04	2.963E+03	11.15

Data Set Number = 9

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
13.45	11.44	1.46	2.17	2.13	6.78	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.64 11.09 11.11 10.60 10.76 11.05	11.00	1.612E+04	1.858E+03	8.71
2	10.96 11.13 11.30 10.96 10.69 11.11	11.05	1.610E+04	1.862E+03	8.65
3	10.73 10.91 11.15 11.14 10.97 10.85	10.96	1.634E+04	1.942E+03	6.41

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.44	11.52	1.47	2.17	2.12	8.81	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	10.86	11.37	11.11	10.83	10.74	11.03	10.99	1.608E+04	1.847E+03	8.70
2	10.99	11.13	11.24	10.94	10.86	11.09	11.04	1.606E+04	1.861E+03	8.63
3	10.71	10.91	11.16	11.15	10.96	10.86	10.96	1.630E+04	1.937E+03	8.41

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.30	12.20	1.57	2.27	2.26	9.02	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	9.22	9.64	9.52	9.21	9.32	9.43	9.39	1.078E+04	1.537E+03	7.01
2	9.53	9.60	9.75	9.57	9.44	9.60	9.58	1.078E+04	1.522E+03	7.08
3	9.65	9.73	9.87	9.99	9.76	9.65	9.78	1.095E+04	1.533E+03	7.14

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.29	12.25	1.59	2.28	2.27	9.04	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	9.25	9.67	9.54	9.21	9.33	9.47	9.41	1.078E+04	1.535E+03	7.02
2	9.53	9.59	9.75	9.59	9.49	9.61	9.60	1.078E+04	1.523E+03	7.08
3	9.64	9.76	9.87	9.97	9.77	9.67	9.78	1.095E+04	1.535E+03	7.13

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.22	12.47	1.54	2.25	2.28	9.07	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	7.90	8.29	8.17	7.85	8.06	8.14	8.07	7.611E+03	1.333E+03	5.71
2	8.21	8.28	8.44	8.36	8.28	8.34	8.32	7.617E+03	1.306E+03	5.83
3	8.73	8.84	8.88	8.97	8.65	8.72	8.83	7.752E+03	1.248E+03	6.21

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.22	12.48	1.54	2.26	2.28	9.08	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	7.90	8.29	8.17	7.86	8.06	8.14	8.07	7.594E+03	1.331E+03	5.71
2	8.22	8.26	8.44	8.36	8.27	8.35	8.32	7.600E+03	1.305E+03	5.82
3	8.72	8.84	8.85	8.96	8.66	8.70	8.82	7.728E+03	1.247E+03	6.20

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.16	12.51	1.46	2.19	2.20	9.04	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	6.36	6.74	6.60	6.32	6.59	6.66	6.55	4.762E+03	1.116E+03	4.27
2	6.69	6.75	6.95	6.91	6.82	6.85	6.83	4.775E+03	1.080E+03	4.42
3	7.78	7.82	7.79	7.95	7.84	7.72	7.82	4.862E+03	9.203E+02	5.28

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.16	12.51	1.47	2.20	2.20	9.05	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.36	6.76	6.64	6.33	6.59	6.67	6.56	4.762E+03	1.114E+03	4.28
2	6.70	6.74	6.95	6.92	6.84	6.86	6.84	4.774E+03	1.079E+03	4.42
3	7.81	7.84	7.80	7.96	7.85	7.70	7.83	4.863E+03	9.194E+02	5.29

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.11	12.49	1.52	2.18	2.18	9.04	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.95	5.22	5.16	4.92	5.17	5.17	5.10	2.498E+03	8.785E+02	2.84
2	5.37	5.39	5.62	5.63	5.53	5.55	5.52	2.511E+03	8.011E+02	3.13
3	7.11	7.05	6.68	7.21	7.07	6.87	7.04	2.563E+03	5.667E+02	4.52

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.11	12.49	1.53	2.21	2.20	9.04	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.99	5.24	5.19	4.95	5.21	5.20	5.13	2.496E+03	8.726E+02	2.86
2	5.39	5.42	5.66	5.65	5.57	5.59	5.55	2.510E+03	7.971E+02	3.15
3	7.13	7.07	6.69	7.22	7.09	6.88	7.05	2.563E+03	5.674E+02	4.52

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.05	12.48	1.51	2.21	2.15	9.01	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(W/m^2)	(W/m^2.K)	(K)	
1	3.90	4.15	4.05	3.89	4.09	4.11	4.03	1.250E+03	6.972E+02	1.79
2	4.40	4.40	4.74	4.66	4.71	4.73	4.61	1.262E+03	5.624E+02	2.24
3	6.26	6.35	6.09	6.33	6.36	6.10	6.25	1.292E+03	3.444E+02	3.75

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.05	12.48	1.52	2.20	2.15	9.02	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.90	4.15	4.05	3.89	4.09	4.12	4.03	1.246E+03	6.942E+02	1.80
2	4.35	4.40	4.74	4.68	4.72	4.73	4.61	1.261E+03	5.622E+02	2.24
3	6.26	6.34	6.08	6.34	6.37	6.11	6.25	1.289E+03	3.432E+02	3.76

NOTE: 20 X-Y pairs were stored in plot data file PDSMC36

Disk number = 08  
 File name: DSM037  
 This data set taken on : 02:13:10:48:36

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.53	9.83	1.57	2.10	2.17	7.64	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	20.31	22.69	19.36	19.95	19.69	21.78	20.63	9.014E+04	5.015E+03	17.97
2	16.97	19.09	19.41	18.46	19.27	19.05	19.04	9.000E+04	5.536E+03	16.26
3	19.04	18.58	18.91	18.92	18.67	18.25	18.73	9.117E+04	5.767E+03	15.81
4	20.28	20.45	21.54	19.03	19.11	22.61	20.50	8.819E+04	5.048E+03	17.47

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.50	9.81	1.58	2.10	2.16	7.63	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	20.32	22.71	19.36	19.96	19.72	21.78	20.64	8.969E+04	4.986E+03	17.99
2	16.98	19.13	19.41	18.47	19.29	19.05	19.05	8.950E+04	5.499E+03	16.27
3	19.03	18.59	18.91	18.92	18.67	18.25	18.73	9.064E+04	5.731E+03	15.81
4	20.29	20.45	21.54	19.03	19.11	22.61	20.51	8.770E+04	5.018E+03	17.48

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.40	10.08	1.75	2.28	2.29	7.74	2.28

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.90	21.93	19.02	19.54	19.27	21.12	20.13	7.932E+04	4.564E+03	17.38
2	18.44	18.57	18.88	17.99	18.70	18.55	18.52	7.918E+04	5.063E+03	15.64
3	18.36	17.99	18.33	18.34	18.10	17.76	18.15	8.020E+04	5.300E+03	15.13
4	19.64	19.69	20.66	18.40	18.51	21.68	19.76	7.755E+04	4.663E+03	16.63

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.40	10.10	1.75	2.28	2.29	7.75	2.29

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.89	21.93	19.02	19.54	19.28	21.12	20.13	7.932E+04	4.565E+03	17.38
2	18.46	18.58	18.90	18.00	18.70	18.56	18.53	7.917E+04	5.060E+03	15.65
3	18.35	18.00	18.34	18.33	18.11	17.76	18.15	8.017E+04	5.299E+03	15.13
4	19.63	19.69	20.66	18.40	18.51	21.69	19.76	7.755E+04	4.663E+03	16.63

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.50	10.55	1.64	2.21	2.21	7.90	2.21

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	18.38	19.85	17.76	18.10	17.89	19.23	18.54	5.856E+04	3.667E+03	15.97
2	16.92	17.04	17.36	16.59	17.14	17.07	17.02	5.848E+04	4.082E+03	14.32
3	16.45	16.30	16.66	16.64	16.40	16.16	16.43	5.924E+04	4.354E+03	13.61
4	17.62	17.74	18.47	18.67	16.82	19.37	17.62	5.731E+04	3.855E+03	14.87

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.51	10.59	1.64	2.20	2.19	7.91	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	18.40	19.84	17.78	18.09	17.84	18.23	18.53	5.857E+04	3.674E+03	15.97
2	16.92	17.04	17.36	16.61	17.14	17.07	17.02	5.856E+04	4.086E+03	14.33
3	16.44	16.30	16.66	16.63	16.41	16.15	16.43	5.933E+04	4.360E+03	13.61
4	17.81	17.73	18.46	16.65	16.80	19.34	17.80	5.740E+04	3.863E+03	14.86

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.65	11.01	1.71	2.31	2.27	8.12	2.29

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	15.60	16.45	15.47	15.43	15.30	15.95	15.70	3.545E+04	2.691E+03	13.17
2	14.72	14.86	15.11	14.53	14.85	14.88	14.83	3.538E+04	2.908E+03	12.17
3	13.76	13.90	14.32	14.23	14.01	13.84	14.01	3.587E+04	3.198E+03	11.22
4	15.39	15.28	15.65	14.43	14.57	16.38	15.28	3.467E+04	2.803E+03	12.37

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.67	11.03	1.72	2.31	2.28	8.14	2.29

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	15.63	16.45	15.49	15.43	15.28	15.95	15.70	3.555E+04	2.700E+03	13.17
2	14.73	14.87	15.13	14.54	14.87	14.89	14.84	3.549E+04	2.915E+03	12.17
3	13.79	13.91	14.31	14.26	14.03	13.87	14.03	3.598E+04	3.204E+03	11.23
4	15.40	15.29	15.69	14.45	14.58	16.40	15.30	3.480E+04	2.810E+03	12.38

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.73	11.07	1.54	2.20	2.13	8.11	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.55	12.18	11.76	11.50	11.39	11.81	11.70	1.902E+04	2.028E+03	9.38
2	11.56	11.67	11.82	11.55	11.48	11.70	11.63	1.900E+04	2.069E+03	9.18
3	11.06	11.16	11.36	11.59	11.33	11.09	11.26	1.928E+04	2.220E+03	8.68
4	12.50	12.64	12.55	11.77	11.89	13.25	12.43	1.864E+04	1.917E+03	9.73

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.74	11.03	1.53	2.20	2.13	8.10	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.57	12.19	11.77	11.51	11.42	11.82	11.71	1.903E+04	2.026E+03	9.38
2	11.56	11.67	11.83	11.55	11.50	11.70	11.63	1.900E+04	2.069E+03	9.19
3	11.05	11.16	11.38	11.59	11.34	11.11	11.27	1.929E+04	2.218E+03	8.70
4	12.52	12.64	12.57	11.81	11.93	13.26	12.45	1.865E+04	1.913E+03	9.75

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.76	11.05	1.58	2.28	2.28	8.13	2.24

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.82	10.31	10.09	9.80	9.76	10.04	9.97	1.327E+04	1.745E+03	7.60
2	10.12	10.18	10.34	10.26	10.05	10.24	10.20	1.326E+04	1.721E+03	7.70
3	9.95	10.00	10.05	10.37	10.13	9.87	10.06	1.347E+04	1.812E+03	7.43
4	11.24	11.43	11.27	10.70	10.82	11.89	11.23	1.301E+04	1.536E+03	8.47

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.76	11.05	1.58	2.29	2.21	8.13	2.25

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.82	10.34	10.10	9.79	9.77	10.06	9.98	1.324E+04	1.741E+03	7.60
2	10.13	10.19	10.36	10.29	10.06	10.24	10.21	1.334E+04	1.717E+03	7.71
3	9.96	10.01	10.07	10.37	10.14	9.87	10.07	1.344E+04	1.808E+03	7.44
4	11.25	11.45	11.29	10.69	10.81	11.92	11.24	1.299E+04	1.533E+03	8.48

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.74	11.00	1.51	2.21	2.20	8.08	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.28	8.64	8.49	8.25	8.25	8.45	8.39	9.019E+03	1.482E+03	6.09
2	8.62	8.66	8.82	8.77	8.62	8.75	8.71	9.021E+03	1.439E+03	6.27
3	8.73	8.76	8.74	9.01	8.83	8.60	8.78	9.173E+03	1.477E+03	6.21
4	10.05	10.27	10.06	9.60	9.70	10.61	10.05	8.865E+03	1.205E+03	7.36

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.74	10.98	1.50	2.20	2.20	8.07	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.25	8.61	8.46	8.21	8.23	8.41	8.36	9.005E+03	1.487E+03	6.05
2	8.57	8.60	8.78	8.75	8.58	8.70	8.66	9.010E+03	1.447E+03	6.23
3	8.69	8.73	8.70	8.98	8.79	8.55	8.74	9.157E+03	1.483E+03	6.17
4	10.06	10.21	10.07	9.57	9.67	10.54	10.02	8.844E+03	1.207E+03	7.33

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.73	11.09	1.40	2.14	2.14	8.07	2.14

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.61	7.05	6.84	6.59	6.77	6.95	6.80	5.664E+03	1.237E+03	4.58
2	6.84	6.88	7.03	7.01	6.99	7.05	6.98	5.675E+03	1.228E+03	4.62
3	7.29	7.36	7.27	7.51	7.40	7.17	7.33	5.778E+03	1.192E+03	4.85
4	8.84	8.95	8.87	8.47	8.58	9.20	8.82	5.578E+03	8.989E+02	6.21

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.73	11.09	1.39	2.13	2.14	8.07	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.59	7.03	6.84	6.55	6.76	6.94	6.79	5.661E+03	1.240E+03	4.57
2	6.83	6.86	7.07	7.01	6.99	7.03	6.97	5.661E+03	1.226E+03	4.62
3	7.28	7.34	7.25	7.50	7.39	7.16	7.32	5.767E+03	1.191E+03	4.84
4	8.85	8.96	8.88	8.46	8.58	9.19	8.82	5.566E+03	8.956E+02	6.21

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.73	11.14	1.52	2.21	2.22	8.13	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.35	5.69	5.56	5.33	5.55	5.63	5.52	3.252E+03	1.007E+03	3.23
2	5.63	5.67	5.85	5.84	5.73	5.78	5.75	3.267E+03	9.805E+02	3.33
3	6.05	6.24	6.15	6.21	6.27	6.08	6.17	3.331E+03	9.204E+02	3.62
4	8.01	7.91	8.03	7.47	7.53	8.09	7.84	3.213E+03	6.219E+02	5.17

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.73	11.14	1.52	2.22	2.22	8.13	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.37	5.70	5.56	5.34	5.56	5.64	5.53	3.270E+03	1.010E+03	3.24
2	5.65	5.69	5.85	5.84	5.73	5.76	5.75	3.284E+03	9.858E+02	3.33
3	6.05	6.23	6.16	6.22	6.26	6.09	6.17	3.351E+03	9.261E+02	3.62
4	8.03	7.93	8.05	7.47	7.54	8.10	7.85	3.233E+03	6.245E+02	5.18

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.73	11.18	1.54	2.20	2.19	8.15	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.99	4.15	4.11	3.98	4.15	4.13	4.09	1.473E+03	8.039E+02	1.83
2	4.09	4.31	4.40	4.43	4.33	4.35	4.35	1.484E+03	7.548E+02	1.97
3	4.90	5.00	4.91	4.96	5.04	4.89	4.95	1.519E+03	6.231E+02	2.44
4	6.49	6.37	6.51	6.07	6.10	6.47	6.33	1.464E+03	3.969E+02	3.69

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.73	11.18	1.52	2.19	2.18	8.14	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.97	4.14	4.10	3.96	4.14	4.10	4.07	1.474E+03	8.092E+02	1.82
2	4.26	4.28	4.38	4.41	4.31	4.32	4.33	1.487E+03	7.639E+02	1.95
3	4.67	4.98	4.89	4.97	5.01	4.86	4.93	1.522E+03	6.286E+02	2.42
4	6.44	6.21	6.46	6.03	6.06	6.43	6.29	1.466E+03	4.013E+02	3.65

NOTE 20 x-y pairs were stored in plot data file PD5M007

Disl number = 08  
 File name: DSM038  
 This data set taken on 02:13:20:04:01

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.93	7.86	1.56	2.12	2.20	6.45	2.16

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	20.62	23.16	19.64	20.26	20.04	22.21	20.99	9.677E+04	5.297E+03	18.27
2	19.32	19.46	19.74	18.74	19.60	19.34	19.37	9.661E+04	5.848E+03	16.52
3	19.25	18.94	19.24	19.15	19.07	18.67	19.05	9.780E+04	6.084E+03	16.07
4	20.63	20.84	21.99	19.37	19.37	22.98	20.86	9.458E+04	5.322E+03	17.77
5	25.86	24.13	23.32	20.87	24.53	24.66	23.90	9.589E+04	4.640E+03	20.67

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.82	7.77	1.61	2.16	2.23	6.40	2.19

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	20.71	23.30	19.69	20.34	20.16	22.34	21.09	9.653E+04	5.263E+03	18.34
2	19.43	19.57	19.85	18.85	19.72	19.45	19.48	9.638E+04	5.806E+03	16.60
3	19.38	19.06	19.35	19.26	19.19	18.76	19.17	9.762E+04	6.044E+03	16.15
4	20.76	20.99	22.14	19.48	19.49	23.13	21.00	9.441E+04	5.283E+03	17.87
5	26.06	24.31	23.49	21.02	24.70	24.82	24.07	9.569E+04	4.599E+03	20.80

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.59	7.78	1.68	2.23	2.28	6.35	2.26

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	19.95	22.04	19.05	19.61	19.38	21.21	20.21	8.100E+04	4.635E+03	17.48
2	18.53	18.66	18.95	18.02	18.76	18.57	18.58	8.086E+04	5.143E+03	15.72
3	18.31	18.11	18.42	18.32	18.21	17.91	18.21	8.192E+04	5.383E+03	15.22
4	19.72	19.69	20.76	18.47	18.50	21.64	19.79	7.922E+04	4.750E+03	16.68
5	24.16	22.56	22.03	19.91	23.03	23.20	22.48	8.033E+04	4.176E+03	19.24

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.56	7.77	1.69	2.23	2.30	6.34	2.26

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	19.99	22.04	19.07	19.62	19.38	21.24	20.22	8.101E+04	4.634E+03	17.48
2	18.53	18.67	18.95	18.03	18.77	18.61	18.59	8.084E+04	5.142E+03	15.72
3	18.33	18.12	18.42	18.32	18.23	17.92	18.22	8.187E+04	5.379E+03	15.22
4	19.73	19.71	20.78	18.45	18.51	21.65	19.80	7.922E+04	4.749E+03	16.68
5	24.17	22.56	22.04	19.90	23.05	23.21	22.49	8.037E+04	4.178E+03	19.23

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.90	8.86	1.68	2.23	2.28	6.81	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.62	18.89	17.21	17.35	17.15	18.32	17.76	5.084E+04	3.349E+03	15.18
2	16.34	16.48	16.73	16.01	16.50	16.43	16.42	5.073E+04	3.700E+03	13.71
3	15.58	15.65	16.08	15.91	15.73	15.59	15.76	5.138E+04	3.978E+03	12.92
4	16.97	16.75	17.42	15.78	15.89	18.16	16.83	4.972E+04	3.585E+03	13.87
5	20.25	19.34	18.91	17.51	19.52	19.93	19.24	5.044E+04	3.123E+03	16.15

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.93	8.91	1.67	2.23	2.27	6.83	2.25			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.63	18.90	17.19	17.35	17.10	18.32	17.75	5.077E+04	3.345E+03	15.18
2	16.33	16.47	16.73	16.00	16.52	16.45	16.42	5.067E+04	3.694E+03	13.72
3	15.57	15.64	16.07	15.90	15.74	15.57	15.75	5.133E+04	3.974E+03	12.92
4	16.97	16.74	17.42	15.78	15.89	18.15	16.82	4.966E+04	3.580E+03	13.87
5	20.26	19.34	18.91	17.54	19.53	19.93	19.25	5.040E+04	3.117E+03	16.17

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.26	9.65	1.62	2.20	2.23	7.18	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.47	15.20	14.48	14.35	14.15	14.77	14.57	3.039E+04	2.504E+03	12.14
2	13.90	14.06	14.25	13.76	13.98	14.00	13.99	3.033E+04	2.653E+03	11.43
3	12.86	13.12	13.59	13.41	13.23	13.15	13.23	3.076E+04	2.920E+03	10.53
4	14.26	14.21	14.48	13.29	13.40	15.13	14.13	2.975E+04	2.629E+03	11.32
5	16.84	16.66	16.16	15.33	16.47	17.07	16.42	3.019E+04	2.241E+03	13.47

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.29	9.66	1.63	2.21	2.25	7.20	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.53	15.22	14.48	14.39	14.19	14.77	14.59	3.031E+04	2.494E+03	12.15
2	13.91	14.05	14.26	13.77	13.98	14.00	14.00	3.025E+04	2.647E+03	11.43
3	12.88	13.12	13.59	13.41	13.23	13.16	13.23	3.068E+04	2.914E+03	10.53
4	14.26	14.21	14.45	13.33	13.43	15.16	14.14	2.968E+04	2.623E+03	11.32
5	16.85	16.67	16.19	15.34	16.50	17.11	16.44	3.012E+04	2.233E+03	13.49

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.40	9.82	1.67	2.23	2.25	7.26	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.00	10.97	10.09	9.97	9.94	10.31	10.18	1.439E+04	1.843E+03	7.81
2	10.22	10.26	10.47	10.35	10.17	10.35	10.34	1.427E+04	1.835E+03	7.84
3	9.98	10.13	10.28	10.46	10.30	10.10	10.21	1.460E+04	1.926E+03	7.59
4	11.17	11.30	11.19	10.52	10.56	11.00	11.03	1.412E+04	1.694E+03	8.33
5	12.99	13.23	12.76	12.12	12.62	13.35	12.85	1.433E+04	1.439E+03	9.96

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.41	9.82	1.59	2.23	2.26	7.27	2.25

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	10.03	10.50	10.30	10.01	9.95	10.33	10.21	1.443E+04	1.844E+03	7.83
2	10.37	10.40	10.49	10.39	10.19	10.36	10.37	1.443E+04	1.835E+03	7.86
3	10.00	10.15	10.31	10.48	10.32	10.12	10.23	1.465E+04	1.930E+03	7.59
4	11.18	11.30	11.21	10.53	10.56	11.81	11.10	1.416E+04	1.700E+03	8.33
5	13.03	13.26	12.77	12.13	12.63	13.36	12.86	1.437E+04	1.442E+03	9.97

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.43	9.82	1.49	2.16	2.24	7.25	2.20

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	8.51	8.91	8.70	8.47	8.42	8.72	8.62	1.020E+04	1.615E+03	6.31
2	8.89	8.95	9.04	9.01	8.82	8.95	8.94	1.020E+04	1.568E+03	6.51
3	8.84	8.99	9.04	9.21	9.13	8.91	9.02	1.037E+04	1.607E+03	6.45
4	9.80	9.95	9.82	9.30	9.35	10.29	9.75	1.002E+04	1.420E+03	7.05
5	11.46	11.70	11.31	10.77	11.13	11.77	11.36	1.016E+04	1.191E+03	8.53

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.43	9.82	1.50	2.16	2.26	7.25	2.21

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	8.50	8.92	8.69	8.45	8.42	8.74	8.62	1.019E+04	1.618E+03	6.30
2	8.90	8.94	9.05	9.02	8.84	8.97	8.95	1.019E+04	1.567E+03	6.51
3	8.85	8.99	9.07	9.23	9.12	8.92	9.03	1.036E+04	1.606E+03	6.45
4	9.80	9.95	9.83	9.32	9.36	10.29	9.76	1.002E+04	1.421E+03	7.05
5	11.48	11.72	11.32	10.77	11.12	11.78	11.36	1.017E+04	1.192E+03	8.53

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.45	9.67	1.51	2.19	2.28	7.21	2.23

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	7.28	7.60	7.42	7.27	7.27	7.49	7.39	6.917E+03	1.267E+03	5.06
2	7.50	7.57	7.68	7.66	7.60	7.67	7.61	6.929E+03	1.344E+03	5.16
3	7.81	7.88	7.83	8.07	7.90	7.72	7.87	7.055E+03	1.335E+03	5.28
4	8.57	8.71	8.61	8.20	8.23	8.92	8.54	6.812E+03	1.169E+03	5.83
5	10.23	10.43	10.15	9.60	9.87	10.51	10.13	6.913E+03	9.485E+02	7.29

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.45	9.68	1.51	2.20	2.28	7.21	2.24

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	7.24	7.60	7.42	7.23	7.28	7.50	7.38	6.921E+03	1.372E+03	5.05
2	7.51	7.57	7.70	7.69	7.60	7.68	7.62	6.935E+03	1.344E+03	5.16
3	7.61	7.91	7.85	8.07	7.98	7.73	7.89	7.055E+03	1.331E+03	5.30
4	8.56	8.71	8.62	8.21	8.24	8.94	8.55	6.815E+03	1.169E+03	5.83
5	10.22	10.42	10.14	9.59	9.85	10.47	10.12	6.916E+03	9.516E+02	7.27

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.47	9.81	1.50	2.19	2.26	7.26	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.80	6.21	5.97	5.78	5.95	6.16	5.98	4.112E+03	1.119E+03	3.68
2	6.02	6.06	6.21	6.17	6.21	6.22	6.15	4.129E+03	1.111E+03	3.72
3	6.61	6.61	6.53	6.79	6.64	6.45	6.60	4.205E+03	1.040E+03	4.04
4	7.15	7.27	7.20	6.94	6.96	7.37	7.15	4.061E+03	9.106E+02	4.46
5	8.74	8.91	8.76	8.20	8.38	8.95	8.66	4.121E+03	7.058E+02	5.84

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.48	9.82	1.51	2.20	2.27	7.27	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.83	6.23	5.99	5.81	5.95	6.19	6.00	4.096E+03	1.112E+03	3.68
2	6.03	6.08	6.22	6.17	6.22	6.24	6.16	4.110E+03	1.106E+03	3.72
3	6.61	6.62	6.52	6.79	6.65	6.45	6.61	4.192E+03	1.040E+03	4.03
4	7.14	7.28	7.20	6.94	6.97	7.39	7.15	4.048E+03	9.096E+02	4.45
5	8.76	8.91	8.76	8.21	8.40	8.93	8.66	4.105E+03	7.038E+02	5.83

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.50	9.90	1.54	2.18	2.23	7.31	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.55	4.76	4.65	4.53	4.66	4.74	4.65	2.074E+03	8.736E+02	2.37
2	4.81	4.80	4.90	4.92	4.87	4.87	4.87	2.088E+03	8.469E+02	2.47
3	5.32	5.37	5.27	5.45	5.40	5.23	5.34	2.135E+03	7.601E+02	2.81
4	6.05	6.04	6.09	5.81	5.85	6.11	5.99	2.058E+03	6.177E+02	3.33
5	7.05	7.19	7.23	6.83	6.97	7.34	7.10	2.087E+03	4.839E+02	4.31

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.50	9.90	1.55	2.20	2.23	7.32	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.55	4.77	4.65	4.53	4.66	4.74	4.65	2.068E+03	8.714E+02	2.37
2	4.81	4.85	4.91	4.90	4.89	4.91	4.88	2.085E+03	8.420E+02	2.47
3	5.34	5.39	5.26	5.44	5.41	5.25	5.35	2.128E+03	7.558E+02	2.82
4	6.06	6.03	6.10	5.83	5.86	6.11	6.00	2.052E+03	6.162E+02	3.33
5	7.05	7.19	7.24	6.84	6.97	7.34	7.10	2.082E+03	4.832E+02	4.31

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.53	9.95	1.54	2.20	2.17	7.34	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetat
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.74	3.88	3.63	3.73	3.85	3.87	3.82	1.120E+03	7.135E+02	1.57
2	4.05	4.07	4.10	4.13	4.10	4.10	4.10	1.131E+03	6.579E+02	1.72
3	4.72	4.68	4.57	4.78	4.72	4.58	4.67	1.158E+03	5.343E+02	2.17
4	5.50	5.54	5.54	5.21	5.24	5.59	5.44	1.117E+03	3.989E+02	2.60
5	5.90	6.00	6.03	5.87	5.90	6.11	5.97	1.132E+03	3.527E+02	3.21

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	10.53	9.96	1.55	2.20	2.15	7.35	2.17		
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	3.72	3.87	3.81	3.72	3.85	3.85	1.122E+03	7.159E+02	1.57
2	4.05	4.07	4.11	4.12	4.10	4.09	1.135E+03	6.581E+02	1.72
3	4.71	4.68	4.56	4.76	4.71	4.55	1.161E+03	5.354E+02	2.17
4	5.50	5.53	5.53	5.18	5.22	5.58	1.118E+03	3.997E+02	2.80
5	5.86	5.98	6.07	5.83	5.90	6.12	1.135E+03	3.538E+02	3.21

NOTE: 20 X-Y pairs were stored in plot data file PDSMD38

Dist number = 09

File name: DMSD39

This data set taken on : 02:14:13:06:14

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	6.57	6.49	1.84	2.37	2.24	4.97	2.30			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	20.34	22.68	19.46	19.98	19.84	21.87	20.69	8.735E+04	4.885E+03	17.88
2	19.09	19.20	18.49	18.50	19.32	19.09	19.12	8.720E+04	5.391E+03	16.18
3	18.90	18.65	19.02	18.82	18.74	18.36	18.75	8.835E+04	5.627E+03	15.67
4	20.27	20.31	21.47	18.96	19.02	22.39	20.40	8.549E+04	4.966E+03	17.21
5	25.06	23.46	22.76	20.57	23.83	23.97	23.28	8.662E+04	4.341E+03	19.95

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	6.52	6.45	1.88	2.39	2.26	4.95	2.33		
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	20.37	22.68	19.44	19.98	19.74	21.86	8.709E+04	4.881E+03	17.84
2	19.14	19.24	19.53	18.53	19.34	19.12	8.695E+04	5.372E+03	16.19
3	18.91	18.68	19.04	18.85	18.80	18.42	8.805E+04	5.614E+03	15.68
4	20.26	20.33	21.47	18.98	19.05	22.40	8.519E+04	4.952E+03	17.20
5	25.06	23.49	22.78	20.60	23.84	24.00	8.637E+04	4.330E+03	19.95

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	6.44	6.56	1.74	2.29	2.19	4.91	2.24			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	19.29	21.13	18.53	18.91	18.76	20.45	19.51	7.105E+04	4.217E+03	16.85
2	17.94	18.07	18.35	17.46	18.16	17.98	17.99	7.091E+04	4.665E+03	15.20
3	17.49	17.42	17.83	17.61	17.51	17.25	17.52	7.184E+04	4.922E+03	14.59
4	18.84	18.81	19.74	17.60	17.69	20.57	18.88	6.950E+04	4.389E+03	15.84
5	23.12	21.64	21.21	19.29	21.99	22.28	21.64	7.049E+04	3.818E+03	18.45

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
6.45	6.55	1.75	2.30	2.19	4.92	2.24

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	19.35	21.22	18.62	18.99	18.80	20.53	19.58	7.175E+04	4.242E+03	16.91
2	18.00	18.13	18.42	17.54	18.22	18.03	18.06	7.161E+04	4.692E+03	15.26
3	17.58	17.49	17.89	17.69	17.61	17.33	17.60	7.253E+04	4.945E+03	14.67
4	18.94	18.89	19.84	17.69	17.78	20.69	18.97	7.015E+04	4.406E+03	15.92
5	23.22	21.94	21.28	19.44	22.09	22.37	21.72	7.114E+04	3.837E+03	18.54

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.37	6.84	1.66	2.24	2.14	5.29	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	17.22	18.61	16.92	16.93	16.96	18.10	17.46	5.055E+04	3.382E+03	14.95
2	16.23	16.38	16.64	15.92	16.42	16.24	16.30	5.042E+04	3.689E+03	13.67
3	15.41	15.52	15.99	15.74	15.63	15.47	15.63	5.111E+04	3.976E+03	12.86
4	16.77	16.62	17.29	15.63	15.76	18.03	16.68	4.947E+04	3.586E+03	13.79
5	20.33	19.58	18.91	17.58	19.44	19.87	19.29	5.016E+04	3.084E+03	16.26

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.38	6.85	1.67	2.24	2.14	5.30	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	17.24	16.62	16.90	16.90	16.89	18.07	17.44	5.066E+04	3.395E+03	14.92
2	16.25	16.39	16.64	15.92	16.40	16.26	16.31	5.056E+04	3.699E+03	13.67
3	15.41	15.53	15.99	15.75	15.62	15.45	15.62	5.125E+04	3.988E+03	12.85
4	16.91	16.63	17.29	15.63	15.76	18.02	16.71	4.961E+04	3.592E+03	13.81
5	20.34	19.60	18.92	17.58	19.46	19.88	19.30	5.033E+04	3.094E+03	16.27

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.37	7.81	1.74	2.29	2.23	5.97	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	13.71	14.66	13.89	13.55	13.62	14.21	13.94	3.026E+04	2.641E+03	11.47
2	13.63	13.76	14.00	13.51	13.61	13.66	13.69	3.024E+04	2.727E+03	11.09
3	12.71	13.01	13.40	13.22	13.13	12.98	13.07	3.066E+04	2.965E+03	10.34
4	14.12	13.98	14.30	13.18	13.28	14.88	13.96	2.964E+04	2.671E+03	11.10
5	15.93	16.81	16.04	15.26	16.29	16.92	16.36	3.009E+04	2.251E+03	13.37

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.40	7.62	1.75	2.29	2.22	5.99	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	13.70	14.65	13.88	13.55	13.56	14.22	13.93	3.037E+04	2.651E+03	11.45
2	13.63	13.77	14.00	13.51	13.61	13.68	13.70	3.032E+04	2.732E+03	11.10
3	12.71	13.03	13.41	13.24	13.13	13.00	13.09	3.075E+04	2.970E+03	10.35
4	14.12	13.98	14.31	13.19	13.29	14.90	13.96	2.975E+04	2.678E+03	11.11
5	16.84	16.61	16.06	15.27	16.30	16.93	16.37	3.017E+04	2.255E+03	13.36

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.99	8.64	1.55	2.17	2.12	6.39	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.63	10.37	10.07	9.59	9.69	10.05	9.90	1.561E+04	2.049E+03	7.62
2	10.07	10.15	10.34	10.17	9.94	10.16	10.14	1.559E+04	2.017E+03	7.73
3	9.77	10.05	10.13	10.18	10.12	9.91	10.03	1.583E+04	2.114E+03	7.49
4	10.97	11.06	10.99	10.33	10.35	11.58	10.88	1.531E+04	1.864E+03	8.21
5	12.79	13.06	12.45	11.86	12.31	12.99	12.58	1.553E+04	1.589E+03	9.78

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.03	8.69	1.57	2.18	2.13	6.43	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.64	10.35	10.05	9.59	9.67	10.01	9.89	1.548E+04	2.038E+03	7.60
2	10.07	10.15	10.34	10.16	9.94	10.15	10.13	1.547E+04	2.005E+03	7.72
3	9.77	10.05	10.14	10.18	10.12	9.92	10.03	1.570E+04	2.099E+03	7.48
4	11.11	11.01	10.98	10.30	10.40	11.53	10.89	1.520E+04	1.850E+03	8.21
5	12.78	13.05	12.43	11.84	12.31	12.98	12.56	1.542E+04	1.580E+03	9.76

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.52	9.11	1.46	2.13	2.10	6.70	2.11

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.75	8.31	8.11	7.72	7.86	8.08	7.97	1.010E+04	1.756E+03	5.75
2	8.00	8.15	8.33	8.20	8.01	8.18	8.16	1.010E+04	1.740E+03	5.81
3	8.24	8.40	8.35	8.54	8.48	8.24	8.38	1.027E+04	1.742E+03	5.90
4	9.29	9.35	9.29	8.81	8.81	9.63	9.20	9.925E+03	1.506E+03	6.59
5	10.50	10.74	10.42	9.87	10.19	10.79	10.42	1.007E+04	1.310E+03	7.68

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.53	9.11	1.46	2.13	2.11	6.70	2.12

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.74	8.31	8.11	7.74	7.88	8.09	7.98	1.004E+04	1.747E+03	5.75
2	8.07	8.16	8.33	8.20	8.01	8.19	8.16	1.005E+04	1.733E+03	5.80
3	8.24	8.41	8.36	8.54	8.47	8.24	8.38	1.022E+04	1.736E+03	5.89
4	9.18	9.24	9.25	8.77	8.80	9.64	9.14	9.884E+03	1.514E+03	6.53
5	10.48	10.74	10.40	9.87	10.17	10.78	10.41	1.002E+04	1.308E+03	7.66

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.58	9.29	1.45	2.13	2.16	6.77	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.62	7.07	6.95	6.62	6.78	6.92	6.83	7.241E+03	1.578E+03	4.59
2	6.92	6.98	7.13	7.11	6.84	6.97	6.99	7.251E+03	1.568E+03	4.62
3	7.26	7.42	7.27	7.50	7.50	7.18	7.35	7.382E+03	1.520E+03	4.86
4	8.16	8.12	8.22	7.78	7.79	8.41	8.08	7.131E+03	1.307E+03	5.46
5	9.04	9.26	9.07	8.60	8.63	9.35	9.02	7.231E+03	1.153E+03	6.27

Date Set Number = 14

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.60	9.30	1.45	2.13	2.18	6.78	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.66	7.07	6.94	6.65	6.77	6.92	6.83	7.223E+03	1.574E+03	4.59
2	6.92	6.98	7.13	7.11	6.85	6.96	6.99	7.236E+03	1.568E+03	4.61
3	7.26	7.40	7.26	7.49	7.50	7.19	7.35	7.262E+03	1.520E+03	4.84
4	8.16	8.13	8.21	7.77	7.78	8.43	8.09	7.115E+03	1.306E+03	5.45
5	9.07	9.29	9.07	8.59	8.82	9.35	9.03	7.217E+03	1.151E+03	6.27

Date Set Number = 15

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.84	9.21	1.45	2.13	2.22	6.83	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.41	5.68	5.60	5.42	5.51	5.58	5.54	4.493E+03	1.370E+03	3.28
2	5.63	5.67	5.80	5.82	5.60	5.68	5.70	4.510E+03	1.360E+03	3.32
3	6.07	6.17	6.03	6.24	6.23	5.98	6.12	4.596E+03	1.274E+03	3.61
4	6.80	6.75	6.87	6.54	6.56	6.96	6.74	4.439E+03	1.082E+03	4.10
5	7.38	7.57	7.47	7.16	7.32	7.63	7.42	4.502E+03	9.683E+02	4.65

Date Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.89	9.20	1.45	2.13	2.23	6.64	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.42	5.66	5.62	5.42	5.50	5.58	5.53	4.489E+03	1.370E+03	3.28
2	5.64	5.66	5.80	5.81	5.61	5.70	5.71	4.506E+03	1.358E+03	3.32
3	6.07	6.18	6.03	6.25	6.24	5.98	6.12	4.595E+03	1.274E+03	3.61
4	6.81	6.75	6.88	6.53	6.56	6.97	6.75	4.437E+03	1.080E+03	4.11
5	7.39	7.57	7.47	7.18	7.34	7.65	7.43	4.497E+03	9.652E+02	4.66

Date Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tida.			
	10.10	9.15	1.46	2.13	2.23	6.90	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.40	4.59	4.54	4.38	4.52	4.54	4.50	2.495E+03	1.111E+03	2.25
2	4.52	4.55	4.63	4.62	4.53	4.58	4.57	2.511E+03	1.144E+03	2.19
3	5.00	5.03	4.87	5.11	5.06	4.83	4.99	2.562E+03	1.034E+03	2.48
4	5.59	5.50	5.67	5.37	5.40	5.65	5.53	2.472E+03	8.540E+02	2.89
5	5.95	6.09	6.13	5.92	6.02	6.21	6.05	2.507E+03	7.620E+02	3.29

Date Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.13	9.21	1.43	2.12	2.21	6.92	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.35	4.56	4.52	4.35	4.50	4.52	4.47	2.491E+03	1.114E+03	2.24
2	4.51	4.52	4.62	4.63	4.50	4.53	4.55	2.505E+03	1.143E+03	2.19
3	4.97	5.01	4.85	5.08	5.04	4.82	4.97	2.560E+03	1.035E+03	2.47
4	5.58	5.47	5.65	5.35	5.39	5.63	5.51	2.472E+03	8.543E+02	2.89
5	5.96	6.09	6.13	5.91	6.01	6.23	6.05	2.505E+03	7.577E+02	3.31

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.37	9.80	1.57	2.21	2.26	7.25	2.23

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.63	3.73	3.71	3.63	3.73	3.70	3.69	1.168E+03	8.385E+02	1.39
2	3.86	3.89	3.89	3.91	3.80	3.82	3.86	1.180E+03	8.241E+02	1.43
3	4.23	4.28	4.20	4.29	4.31	4.18	4.25	1.210E+03	7.141E+02	1.69
4	4.73	4.61	4.80	4.63	4.66	4.73	4.69	1.165E+03	5.805E+02	2.01
5	4.86	4.96	5.00	4.89	4.96	5.04	4.95	1.181E+03	5.518E+02	2.14

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.39	9.85	1.55	2.20	2.27	7.27	2.24

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.61	3.71	3.69	3.61	3.72	3.69	3.67	1.169E+03	8.512E+02	1.37
2	3.85	3.86	3.89	3.93	3.80	3.82	3.86	1.182E+03	8.280E+02	1.43
3	4.23	4.30	4.20	4.31	4.32	4.18	4.26	1.210E+03	7.120E+02	1.70
4	4.73	4.61	4.79	4.61	4.63	4.74	4.69	1.166E+03	5.832E+02	2.00
5	4.86	4.95	4.99	4.86	4.93	5.03	4.94	1.181E+03	5.571E+02	2.12

NOTE: 20 X-Y pairs were stored in plot data file PDSMD39

Disk number = 09

File name: DSMD40

This data set taken on : 02-14 14 49-05

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
4.63	4.33	1.67	2.38	2.27	3.55	2.33

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	17.75	19.24	17.67	17.49	17.50	18.65	18.05	4.730E+04	3.068E+03	15.42
2	17.04	17.25	17.46	16.83	17.20	17.04	17.14	4.723E+04	3.285E+03	14.38
3	16.49	16.59	16.91	16.93	16.66	16.45	16.67	4.786E+04	3.473E+03	13.78
4	17.65	17.49	18.13	16.64	16.67	18.80	17.56	4.631E+04	3.183E+03	14.55
5	20.68	20.22	19.49	18.40	20.04	20.47	19.89	4.697E+04	2.806E+03	16.74

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
4.60	4.33	1.70	2.41	2.28	3.54	2.35

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	17.77	19.25	17.67	17.49	17.53	18.66	18.06	4.646E+04	3.014E+03	15.42
2	17.08	17.28	17.49	16.85	17.21	17.04	17.16	4.716E+04	3.280E+03	14.38
3	16.50	16.62	16.94	16.94	16.69	16.48	16.70	4.787E+04	3.473E+03	13.79
4	17.67	17.52	18.16	16.67	16.71	18.83	17.59	4.630E+04	3.180E+03	14.55
5	20.72	20.23	19.53	18.42	20.07	20.50	19.91	4.697E+04	2.804E+03	16.75

Date Set Number = 3

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	4.84	4.56	1.45	2.20	2.07	3.62	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	14.16	15.67	14.69	14.04	14.34	15.25	14.69	3.069E+04	2.487E+03	12.34
2	14.38	14.56	14.86	14.38	14.41	14.50	14.51	3.065E+04	2.548E+03	12.03
3	13.83	14.07	14.37	14.41	14.15	13.93	14.13	3.109E+04	2.701E+03	11.51
4	15.03	14.88	15.24	14.12	14.14	15.75	14.86	3.007E+04	2.481E+03	12.12
5	17.38	17.44	16.70	16.06	17.02	17.58	17.03	3.050E+04	2.154E+03	14.16

Date Set Number = 4

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	4.84	4.56	1.45	2.21	2.08	3.62	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	14.19	15.71	14.69	14.07	14.37	15.28	14.72	3.098E+04	2.507E+03	12.36
2	14.41	14.50	14.89	14.41	14.48	14.55	14.56	3.092E+04	2.563E+03	12.07
3	13.88	14.09	14.41	14.45	14.18	13.98	14.16	3.136E+04	2.717E+03	11.54
4	15.05	14.90	15.26	14.15	14.17	15.78	14.89	3.034E+04	2.499E+03	12.14
5	17.40	17.47	16.73	16.07	17.05	17.61	17.06	3.077E+04	2.170E+03	14.18

Date Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	5.91	5.25	1.49	2.21	2.10	4.18	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(W/m^2)	(W/m^2)	(K)	(K)
1	9.97	11.18	10.63	9.94	10.30	10.85	10.48	1.638E+04	2.002E+03	8.18
2	10.55	10.64	11.05	10.82	10.53	10.83	10.74	1.637E+04	1.970E+03	8.31
3	10.88	11.08	11.00	11.30	11.19	10.84	11.05	1.662E+04	1.958E+03	8.49
4	12.00	11.91	12.08	11.31	11.36	12.45	11.85	1.608E+04	1.754E+03	9.17
5	13.10	13.44	13.06	12.41	12.84	13.58	13.07	1.630E+04	1.590E+03	10.26

Date Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	5.87	5.26	1.49	2.21	2.11	4.21	2.16			
Tube #	Wall Temperatures (°C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (°C)	(W/m²)	(W/m².K)	(K)	
1	9.99	11.21	10.64	9.94	10.26	10.88	10.49	1.635E+04	1.997E+03	8.19
2	10.55	10.65	11.04	10.82	10.53	10.82	10.74	1.635E+04	1.968E+03	8.31
3	10.86	11.07	11.00	11.31	11.19	10.83	11.05	1.659E+04	1.955E+03	8.49
4	12.02	11.90	12.03	11.37	11.34	12.39	11.84	1.605E+04	1.753E+03	9.16
5	13.09	13.40	13.04	12.41	12.83	13.59	13.05	1.628E+04	1.589E+03	10.25

Date Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.67	5.92	1.46	2.18	2.12	4.69	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	8.07	8.68	8.51	8.00	8.28	8.63	8.39	1.098E+04	1.792E+03	6.13
2	8.67	8.74	9.11	8.92	8.66	8.92	8.84	1.098E+04	1.704E+03	6.44
3	9.28	9.55	9.14	9.58	9.61	9.05	9.37	1.115E+04	1.628E+03	6.85
4	10.22	9.65	10.20	9.67	9.55	10.31	9.95	1.079E+04	1.478E+03	7.30
5	10.31	10.59	10.45	9.94	10.22	10.80	10.39	1.095E+04	1.439E+03	7.61

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.68	5.97	1.48	2.18	2.12	4.71	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	8.02	8.89	8.54	8.01	8.27	8.65	8.40	1.099E+04	1.792E+03	6.13
2	8.69	8.74	9.13	8.95	8.68	8.94	8.85	1.100E+04	1.702E+03	6.46
3	9.31	9.57	9.15	9.60	9.61	9.07	9.38	1.119E+04	1.630E+03	6.86
4	10.22	9.88	10.21	9.50	9.57	10.32	9.97	1.081E+04	1.477E+03	7.32
5	10.36	10.62	10.46	9.96	10.25	10.80	10.41	1.096E+04	1.437E+03	7.63

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.72	6.01	1.48	2.20	2.13	4.73	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	8.05	8.92	8.57	8.03	8.33	8.68	8.43	1.098E+04	1.786E+03	6.15
2	8.68	8.73	9.17	8.97	8.71	8.97	8.87	1.098E+04	1.700E+03	6.46
3	9.31	9.58	9.15	9.62	9.64	9.07	9.40	1.117E+04	1.629E+03	6.86
4	10.23	9.91	10.23	9.58	9.55	10.37	9.98	1.090E+04	1.477E+03	7.31
5	10.43	10.72	10.50	9.89	10.19	10.86	10.43	1.094E+04	1.434E+03	7.63

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.07	6.53	1.38	2.18	2.15	4.99	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	6.56	7.01	6.86	6.56	6.73	6.87	6.77	7.134E+03	1.583E+03	4.51
2	7.09	7.14	7.37	7.30	6.98	7.17	7.17	7.144E+03	1.493E+03	4.79
3	7.60	7.76	7.52	7.78	7.82	7.48	7.66	7.272E+03	1.414E+03	5.14
4	8.06	7.87	8.09	7.73	7.73	8.18	7.94	7.030E+03	1.327E+03	5.30
5	8.21	8.42	8.25	7.94	8.12	8.50	8.24	7.125E+03	1.304E+03	5.46

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.08	6.54	1.35	2.15	2.11	4.99	2.13

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	6.48	7.00	6.87	6.48	6.73	6.87	6.74	7.136E+03	1.582E+03	4.51
2	7.02	7.07	7.37	7.25	6.99	7.19	7.15	7.149E+03	1.491E+03	4.79
3	7.63	7.76	7.44	7.83	7.82	7.40	7.65	7.275E+03	1.409E+03	5.16
4	8.06	7.91	8.11	7.69	7.68	8.24	7.95	7.033E+03	1.318E+03	5.34
5	8.27	8.47	8.29	7.91	8.09	8.53	8.26	7.134E+03	1.292E+03	5.52

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.4E	6.58	1.33	2.16	2.16	5.12	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	5.61	5.97	5.89	5.59	5.80	5.87	5.79	4.937E+03	1.394E+03	3.54
2	5.95	5.99	6.23	6.20	5.99	6.11	6.08	4.955E+03	1.338E+03	3.70
3	6.42	6.59	6.30	6.58	6.64	6.27	6.47	5.049E+03	1.274E+03	3.96
4	6.84	6.62	6.87	6.53	6.54	6.88	6.71	4.873E+03	1.194E+03	4.08
5	6.92	7.11	7.01	6.73	6.87	7.18	6.97	4.942E+03	1.174E+03	4.21

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.50	6.53	1.31	2.16	2.16	5.11	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.63	5.95	5.87	5.63	5.80	5.88	5.79	4.946E+03	1.392E+03	3.55
2	5.99	6.03	6.22	6.17	5.96	6.08	6.07	4.961E+03	1.339E+03	3.70
3	6.39	6.57	6.34	6.57	6.61	6.31	6.47	5.058E+03	1.275E+03	3.97
4	6.82	6.59	6.86	6.54	6.54	6.85	6.70	4.886E+03	1.200E+03	4.07
5	6.87	7.07	7.04	6.71	6.85	7.20	6.95	4.951E+03	1.180E+03	4.20

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.54	6.54	1.32	2.16	2.15	5.13	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.63	5.96	5.91	5.61	5.82	5.87	5.80	4.937E+03	1.385E+03	3.56
2	5.98	6.01	6.25	6.21	5.97	6.08	6.06	4.958E+03	1.333E+03	3.72
3	6.42	6.55	6.28	6.57	6.57	6.25	6.44	5.047E+03	1.279E+03	3.95
4	6.75	6.55	6.82	6.51	6.53	6.82	6.68	4.869E+03	1.201E+03	4.05
5	6.87	7.05	6.99	6.70	6.83	7.14	6.93	4.941E+03	1.183E+03	4.18

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.93	6.02	1.39	2.16	2.26	5.08	2.21			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.54	4.81	4.72	4.55	4.70	4.76	4.68	2.805E+03	1.168E+03	2.40
2	4.87	4.88	5.02	5.02	4.97	4.92	4.93	2.822E+03	1.121E+03	2.52
3	5.22	5.28	5.08	5.23	5.21	5.07	5.22	2.878E+03	1.076E+03	2.68
4	5.48	5.38	5.57	5.31	5.35	5.56	5.48	2.762E+03	1.002E+03	2.78
5	5.62	5.74	5.69	5.47	5.55	5.82	5.65	2.820E+03	9.898E+02	2.85

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tva	Tlda			
	7.88	5.99	1.36	2.16	2.27	5.09	2.21			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.55	4.82	4.72	4.57	4.70	4.79	4.70	2.793E+03	1.157E+03	2.41
2	4.88	4.90	5.03	5.02	4.91	4.85	4.85	2.809E+03	1.108E+03	2.53
3	5.28	5.29	5.03	5.28	5.22	5.06	5.24	2.867E+03	1.083E+03	2.70
4	5.50	5.42	5.57	5.31	5.34	5.59	5.46	2.766E+03	9.932E+02	2.78
5	5.65	5.76	5.70	5.46	5.54	5.79	5.65	2.805E+03	9.834E+02	2.85

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.89	5.95	1.39	2.16	2.26	5.07	2.22			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.57	4.81	4.72	4.55	4.72	4.76	4.70	2.808E+03	1.168E+03	2.40
2	4.90	4.92	5.02	5.01	4.89	4.85	4.95	2.821E+03	1.116E+03	2.53
3	5.24	5.28	5.05	5.25	5.21	5.07	5.22	2.884E+03	1.090E+03	2.67
4	5.47	5.39	5.54	5.29	5.32	5.57	5.43	2.782E+03	1.011E+03	2.75
5	5.62	5.73	5.65	5.44	5.52	5.75	5.62	2.917E+03	1.002E+03	2.81

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.91	5.95	1.39	2.20	2.27	5.08	2.23

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	4.59	4.80	4.74	4.59	4.72	4.75	4.70	2.804E+03	1.171E+03	2.39
2	4.91	4.93	5.04	5.02	4.88	4.94	4.95	2.820E+03	1.119E+03	2.52
3	5.24	5.27	5.09	5.37	5.30	5.06	5.22	2.879E+03	1.083E+03	2.66
4	5.45	5.39	5.52	5.29	5.32	5.58	5.43	2.778E+03	1.017E+03	2.73
5	5.64	5.74	5.64	5.42	5.51	5.75	5.62	2.815E+03	1.008E+03	2.79

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.05	6.22	1.40	2.09	2.25	5.22	2.17

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.60	3.74	3.75	3.59	3.76	3.72	3.70	1.330E+03	9.089E+02	1.46
2	3.82	3.83	4.01	4.02	3.86	3.91	3.91	1.344E+03	8.687E+02	1.55
3	4.25	4.26	4.01	4.32	4.32	4.01	4.20	1.375E+03	8.060E+02	1.71
4	4.43	4.37	4.51	4.23	4.28	4.51	4.39	1.325E+03	7.480E+02	1.77
5	4.53	4.63	4.59	4.35	4.41	4.64	4.52	1.343E+03	7.568E+02	1.77

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.07	6.29	1.39	2.06	2.24	5.25	2.15

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.58	3.73	3.68	3.57	3.70	3.70	3.66	1.329E+03	9.166E+02	1.45
2	3.80	3.82	3.91	3.93	3.82	3.84	3.85	1.344E+03	8.892E+02	1.51
3	4.16	4.14	3.99	4.23	4.17	3.97	4.11	1.375E+03	8.378E+02	1.64
4	4.33	4.30	4.40	4.20	4.22	4.43	4.31	1.325E+03	7.730E+02	1.71
5	4.48	4.56	4.50	4.30	4.37	4.56	4.46	1.344E+03	7.742E+02	1.74

NOTE 20 X-Y pairs were stored in plot data file PD5MD40

Dist number = 09

File name DSMD41

This data set taken on 02:14 16:00 18

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.64	6.04	1.53	2.18	2.12	5.07	2.16

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	20.73	23.12	19.94	20.34	20.30	22.35	21.13	8.609E+04	4.661E+03	18.47
2	19.36	19.43	19.77	18.78	19.59	19.40	19.39	8.595E+04	5.178E+03	16.60
3	19.16	18.87	19.34	19.09	19.06	18.83	19.06	8.703E+04	5.393E+03	16.14
4	20.65	20.66	21.71	19.17	19.32	22.72	20.70	8.419E+04	4.765E+03	17.67
5	25.63	24.12	23.25	21.06	24.34	24.54	23.82	8.541E+04	4.135E+03	20.65

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.62	6.01	1.51	2.19	2.12	5.05	2.15

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	20.72	20.31	8.572E+04	4.640E+03	18.47
2	19.35	19.41	8.556E+04	5.153E+03	16.60
3	19.13	18.86	8.665E+04	5.374E+03	16.12
4	20.63	20.67	8.381E+04	4.747E+03	17.66
5	25.61	24.13	8.501E+04	4.117E+03	20.65

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.60	6.15	1.57	2.23	2.16	5.11	2.19

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	20.20	20.53	7.538E+04	4.213E+03	17.89
2	18.80	18.86	7.525E+04	4.683E+03	16.07
3	18.45	18.24	7.618E+04	4.904E+03	15.54
4	20.01	20.01	7.367E+04	4.341E+03	16.97
5	24.55	23.22	7.472E+04	3.781E+03	19.76

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.60	6.16	1.57	2.23	2.17	5.11	2.20

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	20.21	20.31	7.555E+04	4.218E+03	17.91
2	18.81	18.87	7.544E+04	4.696E+03	16.05
3	18.47	18.25	7.629E+04	4.914E+03	15.54
4	20.01	20.01	7.389E+04	4.357E+03	16.96
5	24.56	23.24	7.495E+04	3.790E+03	19.77

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.82	6.66	1.69	2.36	2.27	5.45	2.31

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	18.60	18.35	5.574E+04	3.428E+03	16.26
2	17.39	17.45	5.563E+04	3.786E+03	14.69
3	16.85	16.80	5.637E+04	4.009E+03	14.05
4	18.35	18.25	5.452E+04	3.592E+03	15.18
5	21.95	21.07	5.530E+04	3.137E+03	17.63

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.83	6.67	1.68	2.35	2.27	5.45	2.31

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	18.58	18.34	5.573E+04	3.431E+03	16.24
2	17.47	17.51	5.563E+04	3.775E+03	14.73
3	16.86	16.84	5.635E+04	3.984E+03	14.11
4	19.42	18.30	5.453E+04	3.579E+03	15.23
5	21.99	21.12	5.532E+04	3.130E+03	17.67

Data Set Number = 7

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.08	6.88	1.58	2.29	2.20	5.51	2.24

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	15.68	16.68	15.78	15.54	15.42	16.22	15.89	3.424E+04	2.553E+03	13.41
2	15.10	15.23	15.47	14.91	15.20	15.25	15.19	3.418E+04	2.715E+03	12.59
3	14.42	14.56	14.98	14.93	14.73	14.59	14.70	3.465E+04	2.896E+03	11.96
4	15.77	15.78	15.95	14.68	14.83	16.77	15.63	3.352E+04	2.625E+03	12.77
5	18.21	17.93	17.29	16.47	17.83	18.25	17.66	3.400E+04	2.318E+03	14.67

Data Set Number = 8

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.10	6.79	1.59	2.30	2.20	5.49	2.25

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	15.68	16.69	15.78	15.55	15.43	16.24	15.90	3.429E+04	2.557E+03	13.41
2	15.10	15.25	15.48	14.90	15.21	15.26	15.20	3.422E+04	2.719E+03	12.59
3	14.43	14.56	14.96	14.95	14.74	14.60	14.71	3.469E+04	2.900E+03	11.96
4	15.76	15.77	15.96	14.69	14.83	16.77	15.63	3.356E+04	2.629E+03	12.77
5	18.23	17.93	17.29	16.47	17.83	18.26	17.67	3.406E+04	2.322E+03	14.67

Data Set Number = 9

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.31	6.08	1.54	2.30	2.23	5.31	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.62	12.37	11.92	11.56	11.53	12.03	11.84	1.812E+04	1.922E+03	9.43
2	11.83	11.95	12.15	11.85	11.79	11.98	11.93	1.810E+04	1.929E+03	9.38
3	11.77	11.87	12.00	12.32	12.04	11.78	11.96	1.836E+04	1.977E+03	9.29
4	13.00	13.11	13.04	12.23	12.27	13.69	12.89	1.775E+04	1.759E+03	10.09
5	14.70	14.82	14.33	13.78	14.40	14.99	14.50	1.803E+04	1.557E+03	11.57

Data Set Number = 10

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.33	6.05	1.54	2.30	2.23	5.31	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.63	12.36	11.91	11.56	11.54	12.03	11.84	1.812E+04	1.923E+03	9.42
2	11.85	11.96	12.16	11.87	11.79	11.99	11.94	1.811E+04	1.928E+03	9.39
3	11.78	11.88	12.00	12.35	12.04	11.79	11.97	1.838E+04	1.978E+03	9.30
4	13.01	13.12	13.08	12.26	12.27	13.70	12.91	1.778E+04	1.760E+03	10.10
5	14.70	14.80	14.32	13.77	14.39	14.97	14.49	1.804E+04	1.560E+03	11.56

Data Set Number = 11

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.47	6.02	1.44	2.22	2.19	5.31	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	9.71	10.24	9.95	9.66	9.62	9.98	9.86	1.249E+04	1.658E+03	7.53
2	10.10	10.20	10.47	10.32	10.16	10.32	10.26	1.248E+04	1.599E+03	7.81
3	10.39	10.43	10.43	10.86	10.52	10.28	10.49	1.269E+04	1.606E+03	7.90
4	11.35	11.50	11.38	10.81	10.85	11.90	11.30	1.227E+04	1.429E+03	8.59
5	13.08	13.29	12.88	12.27	12.76	13.39	12.96	1.244E+04	1.230E+03	10.12

Date Set Number = 12

		Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav		
		8.48	6.03	1.44	2.22	2.20	5.32	2.21		
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.73	10.23	9.97	9.71	9.67	9.97	9.88	1.250E+04	1.656E+03	7.55
2	10.12	10.26	10.46	10.24	10.16	10.32	10.26	1.250E+04	1.602E+03	7.80
3	10.39	10.45	10.42	10.86	10.55	10.27	10.50	1.269E+04	1.605E+03	7.91
4	11.36	11.50	11.38	10.80	10.83	11.92	11.30	1.227E+04	1.430E+03	8.58
5	13.05	13.27	12.66	12.35	12.74	13.36	12.94	1.245E+04	1.234E+03	10.09

Date Set Number = 13

		Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav		
		8.63	6.20	1.39	2.20	2.19	5.41	2.20		
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.27	8.70	8.46	8.21	8.25	8.53	8.40	8.652E+03	1.419E+03	6.10
2	8.55	8.64	8.87	8.73	8.69	8.80	8.72	8.669E+03	1.379E+03	6.29
3	9.09	9.17	9.09	9.42	9.22	8.94	9.15	8.618E+03	1.337E+03	6.60
4	9.06	9.97	9.92	9.55	9.57	10.25	9.85	8.520E+03	1.169E+03	7.17
5	11.73	11.95	11.67	11.15	11.45	12.05	11.67	8.642E+03	9.763E+02	8.65

Date Set Number = 14

		Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav		
		8.64	6.23	1.39	2.20	2.20	5.42	2.20		
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.26	8.69	8.49	8.26	8.26	8.50	8.41	8.657E+03	1.417E+03	6.11
2	8.55	8.66	8.88	8.79	8.70	8.82	8.73	8.664E+03	1.376E+03	6.30
3	9.09	9.17	9.07	9.43	9.22	8.94	9.15	8.609E+03	1.337E+03	6.59
4	9.87	9.96	9.93	9.54	9.57	10.25	9.85	8.511E+03	1.186E+03	7.16
5	11.70	11.93	11.66	11.17	11.46	12.05	11.66	8.637E+03	9.771E+02	8.64

Date Set Number = 15

		Tv1	Tv2	Tv3	Tid1	Tid2	Tva	Tida		
		6.76	6.63	1.42	2.22	2.23	5.61	2.22		
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	6.82	7.32	7.06	6.78	6.98	7.22	7.03	5.595E+03	1.186E+03	4.72
2	7.05	7.15	7.36	7.32	7.21	7.27	7.23	5.602E+03	1.169E+03	4.79
3	7.78	7.85	7.72	8.01	7.90	7.60	7.81	5.703E+03	1.088E+03	5.24
4	8.46	8.54	8.56	8.26	8.29	8.73	8.47	5.506E+03	9.533E+02	5.78
5	10.27	10.49	10.46	9.97	10.15	10.71	10.34	5.585E+03	7.433E+02	7.51

Date Set Number = 16

		Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav		
		8.75	6.75	1.42	2.23	2.24	5.66	2.24		
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.82	7.30	7.06	6.79	6.99	7.20	7.02	5.557E+03	1.182E+03	4.72
2	7.05	7.16	7.35	7.32	7.19	7.25	7.22	5.569E+03	1.167E+03	4.77
3	7.76	7.84	7.70	7.97	7.86	7.60	7.79	5.670E+03	1.066E+03	5.21
4	8.45	8.51	8.54	8.24	8.27	8.70	8.45	5.477E+03	9.539E+02	5.74
5	10.20	10.53	10.45	9.95	10.15	10.71	10.35	5.558E+03	7.400E+02	7.51

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.91	7.75	1.42	2.19	2.19	6.03	2.19

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.36	5.70	5.51	5.34	5.51	5.65	5.51	3.206E+03	9.864E+02	3.25
2	5.70	5.74	5.83	5.81	5.72	5.74	5.76	3.221E+03	9.571E+02	3.37
3	6.40	6.39	6.29	6.53	6.41	6.23	6.38	3.285E+03	8.521E+02	3.85
4	7.12	7.13	7.21	6.95	7.00	7.27	7.11	3.170E+03	7.101E+02	4.46
5	8.66	8.84	8.99	8.56	8.71	9.12	8.81	3.216E+03	5.329E+02	6.03

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.92	7.83	1.41	2.19	2.18	6.05	2.19

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.38	5.67	5.51	5.34	5.50	5.63	5.50	3.204E+03	9.873E+02	3.25
2	5.69	5.73	5.82	5.80	5.72	5.75	5.75	3.220E+03	9.570E+02	3.36
3	6.38	6.38	6.29	6.52	6.43	6.23	6.37	3.284E+03	8.515E+02	3.86
4	7.11	7.12	7.20	6.94	6.99	7.27	7.11	3.169E+03	7.108E+02	4.46
5	8.64	8.83	8.96	8.52	8.66	9.10	8.78	3.216E+03	5.354E+02	6.01

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.05	8.26	1.51	2.26	2.22	6.27	2.24

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.47	4.45	4.51	4.45	4.52	4.41	4.47	1.495E+03	6.898E+02	2.17
2	4.89	4.91	4.78	4.88	4.65	4.69	4.80	1.506E+03	6.368E+02	2.37
3	5.42	5.53	5.45	5.50	5.58	5.42	5.48	1.541E+03	5.278E+02	2.92
4	6.29	6.16	6.36	6.03	6.07	6.26	6.20	1.486E+03	4.243E+02	3.50
5	7.02	7.16	7.37	6.99	7.09	7.42	7.18	1.506E+03	3.459E+02	4.36

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.06	8.29	1.52	2.29	2.21	6.29	2.25

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.47	4.47	4.53	4.48	4.54	4.44	4.49	1.499E+03	6.902E+02	2.17
2	4.91	4.94	4.80	4.88	4.68	4.70	4.82	1.512E+03	6.374E+02	2.37
3	5.42	5.56	5.47	5.50	5.59	5.45	5.50	1.547E+03	5.292E+02	2.92
4	6.29	6.14	6.33	6.03	6.08	6.26	6.19	1.492E+03	4.277E+02	3.49
5	7.03	7.17	7.35	6.98	7.08	7.42	7.17	1.512E+03	3.483E+02	4.34

NOTE 20 X-Y pairs were stored in plot data file PDSMD41

Disk number = 18

File name DSHD42

This data set taken on 02 17 10 18 24

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.55	8.04	1.44	2.10	2.21	6.34	2.16

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	20.74	24.39	20.89	20.50	20.80	23.89	21.87	9.117E+04	4.752E+03	19.18

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.54	8.05	1.49	2.14	2.25	6.36	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	20.73	24.26	20.87	20.48	20.89	23.68	21.82	9.090E+04	4.755E+03	19.10

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.48	8.06	1.52	2.18	2.28	6.35	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.50	22.27	19.62	19.31	19.48	21.70	20.32	7.832E+04	4.444E+03	17.62

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.48	8.06	1.51	2.17	2.26	6.35	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.51	22.32	19.62	19.30	19.54	21.75	20.34	7.815E+04	4.424E+03	17.66

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.52	8.08	1.54	2.16	2.21	6.38	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.20	17.46	15.96	16.00	15.81	16.89	16.39	4.895E+04	3.524E+03	13.89

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.53	8.06	1.54	2.16	2.22	6.39	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.19	17.41	15.91	16.00	15.74	16.82	16.35	4.891E+04	3.532E+03	13.85

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.94	8.31	1.63	2.22	2.23	6.63	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	13.49	12.53	13.05	13.34	12.67	13.03	13.18	2.944E+04	2.739E+03	10.75

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.00	8.34	1.64	2.23	2.25	6.66	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	13.52	12.54	13.07	13.36	12.67	13.05	13.20	2.948E+04	2.742E+03	10.75

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.83	9.26	1.69	2.33	2.25	7.26	2.29

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.13	10.68	10.74	11.05	10.50	10.33	10.74	1.420E+04	1.707E+03	8.32

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.88	9.41	1.71	2.33	2.27	7.33	2.30

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.14	10.73	10.79	11.06	10.53	10.37	10.77	1.421E+04	1.705E+03	8.34

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.27	10.37	1.64	2.31	2.25	7.76	2.28

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.10	9.56	9.81	10.02	9.62	9.31	9.74	9.736E+03	1.325E+03	7.35

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.29	10.42	1.64	2.31	2.25	7.78	2.28

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.06	9.56	9.82	10.01	9.63	9.29	9.73	9.679E+03	1.318E+03	7.34

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.44	10.70	1.47	2.24	2.16	7.87	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.14	8.56	8.90	9.12	8.77	8.37	8.61	6.653E+03	1.070E+03	6.52

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.46	10.72	1.49	2.25	2.17	7.88	2.21

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.16	8.61	8.94	9.12	8.82	8.42	8.85	6.646E+03	1.016E+03	6.54

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.53	10.84	1.49	2.36	2.26	7.95	2.31

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.22	7.68	8.15	8.21	8.11	7.57	7.99	3.755E+03	6.704E+02	5.60

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.53	10.85	1.51	2.37	2.27	7.96	2.32

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.26	7.71	8.18	8.24	8.13	7.60	8.02	3.765E+03	6.698E+02	5.62

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.51	10.64	1.17	2.38	2.11	7.77	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.84	6.51	6.99	6.84	6.94	6.45	6.76	1.827E+03	4.103E+02	4.45

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.52	10.68	1.17	2.37	2.11	7.79	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.84	6.51	6.99	6.85	6.95	6.46	6.77	1.828E+03	4.096E+02	4.46

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.61	10.90	1.31	2.47	2.06	7.94	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.80	5.76	6.02	5.81	6.02	5.71	5.85	1.064E+03	3.019E+02	3.52

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.62	10.92	1.34	2.41	2.05	7.96	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.80	5.75	6.01	5.80	5.99	5.70	5.84	1.057E+03	2.975E+02	3.55

NOTE 20 X-Y pairs were stored in plot data file PD5M042

Dist number = 10

File name DSM042

This data set taken on 02.17 11:43 08

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.88	8.43	1.45	2.14	2.26	6.58	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	20.73	23.42	20.17	20.43	20.45	22.73	21.32	9.165E+04	4.930E+03	18.59
2	18.95	16.83	19.29	18.27	19.12	19.17	18.95	9.149E+04	5.685E+03	16.09

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.82	8.42	1.45	2.14	2.27	6.57	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	20.69	23.44	20.18	20.45	20.50	22.73	21.33	9.156E+04	4.922E+03	18.60
2	18.98	18.88	19.40	18.30	19.12	19.16	18.97	9.139E+04	5.672E+03	16.11

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.59	8.16	1.59	2.24	2.32	6.45	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	19.06	21.28	18.90	18.99	18.98	20.65	19.64	7.331E+04	4.331E+03	16.93
2	17.41	17.27	17.78	16.74	17.45	17.55	17.37	7.318E+04	5.039E+03	14.52

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.57	8.15	1.59	2.25	2.31	6.44	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	19.14	21.29	18.93	19.00	19.05	20.65	19.67	7.347E+04	4.333E+03	16.96
2	17.41	17.27	17.77	16.72	17.43	17.56	17.36	7.333E+04	5.052E+03	14.51

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.59	8.28	1.59	2.20	2.23	6.49	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	16.44	17.99	16.73	16.52	16.39	17.43	16.92	5.209E+04	3.623E+03	14.38
2	15.36	15.32	15.66	14.78	15.41	15.47	15.33	5.198E+04	4.104E+03	12.66

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.60	8.30	1.58	2.20	2.22	6.50	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	16.50	16.03	16.74	16.53	16.42	17.44	16.94	5.188E+04	3.601E+03	14.40
2	15.37	15.33	15.66	14.78	15.40	15.46	15.33	5.177E+04	4.087E+03	12.67

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.67	8.29	1.68	2.27	2.26	6.55	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	13.01	13.80	13.38	13.14	12.67	13.35	13.23	3.130E+04	2.914E+03	10.74
2	13.36	13.41	13.50	12.90	13.25	13.35	13.29	3.124E+04	2.924E+03	10.68

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.67	8.28	1.70	2.27	2.26	6.55	2.27

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.98	13.75	13.34	13.11	12.53	13.31	13.17	3.127E+04	2.927E+03	10.68
2	13.37	13.36	13.44	12.88	13.21	13.30	13.26	3.121E+04	2.932E+03	10.64

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.75	8.34	1.68	2.26	2.25	6.59	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.94	10.29	10.22	10.00	9.62	9.97	10.01	1.622E+04	2.130E+03	7.61
2	11.50	11.56	11.40	11.10	11.12	11.33	11.34	1.620E+04	1.838E+03	8.81

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.76	8.36	1.69	2.26	2.25	6.60	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.95	10.30	10.20	10.01	9.60	9.98	10.01	1.620E+04	2.127E+03	7.62
2	11.49	11.57	11.42	11.11	11.12	11.32	11.34	1.618E+04	1.834E+03	8.82

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.05	8.48	1.63	2.26	2.21	6.72	2.23

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.53	8.87	8.78	8.50	8.46	8.66	8.63	1.054E+04	1.577E+03	6.29
2	10.48	10.53	10.35	10.12	10.10	10.27	10.31	1.054E+04	1.346E+03	7.83

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.10	8.49	1.63	2.26	2.21	6.74	2.24

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.52	8.87	8.78	8.50	8.49	8.67	8.64	1.050E+04	1.670E+03	6.29
2	10.51	10.53	10.36	10.12	10.09	10.29	10.32	1.050E+04	1.339E+03	7.84

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.76	8.77	1.64	2.30	2.22	7.05	2.26

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.52	7.95	7.82	7.48	7.66	7.80	7.71	7.551E+03	1.411E+03	5.35
2	9.91	9.90	9.72	9.51	9.59	9.71	9.72	7.557E+03	1.044E+03	7.24

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.83	8.81	1.65	2.31	2.23	7.10	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.55	7.97	7.85	7.51	7.70	7.83	7.74	7.564E+03	1.409E+03	5.37
2	9.96	9.96	9.72	9.52	9.58	9.72	9.74	7.572E+03	1.045E+03	7.25

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.13	9.60	1.63	2.36	2.23	7.45	2.30

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.31	6.85	6.64	6.28	6.61	6.76	6.58	4.534E+03	1.079E+03	4.20
2	8.99	9.02	8.94	8.79	8.83	8.95	8.92	4.548E+03	7.089E+02	6.42

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.18	9.77	1.63	2.37	2.24	7.53	2.30

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.33	6.86	6.65	6.29	6.62	6.76	6.58	4.550E+03	1.083E+03	4.20
2	8.97	8.99	8.90	8.75	8.79	8.90	8.89	4.564E+03	7.162E+02	6.37

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.34	10.26	1.50	2.30	2.21	7.70	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.24	5.60	5.43	5.23	5.46	5.57	5.42	2.495E+03	8.056E+02	3.10
2	7.85	7.85	8.03	7.87	7.90	7.98	7.91	2.509E+03	4.596E+02	5.46

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.35	10.30	1.49	2.29	2.19	7.71	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.24	5.59	5.39	5.20	5.43	5.55	5.40	2.488E+03	8.057E+02	3.09
2	7.84	7.85	8.02	7.87	7.90	7.98	7.91	2.503E+03	4.577E+02	5.47

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.45	10.54	1.30	2.23	2.18	7.76	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.50	4.60	4.45	4.49	4.50	4.59	4.52	1.144E+03	5.072E+02	2.26
2	6.53	6.54	6.73	6.70	6.49	6.56	6.59	1.156E+03	2.755E+02	4.19

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.45	10.56	1.29	2.22	2.15	7.77	2.19

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	4.46	4.58	4.44	4.48	4.50	4.58	4.51	1.144E+03	5.069E+02	2.26
2	6.54	6.53	6.72	6.70	6.49	6.56	6.59	1.155E+03	2.741E+02	4.21

NOTE: 20 X-Y pairs were stored in plot data file PDSMD43

Disk number = 10

File name: DSM044

This data set taken on 02/17/12:56:40

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.67	8.40	1.55	2.22	2.31	6.87	2.26

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	20.39	23.05	19.94	20.13	19.95	22.36	20.97	8.838E+04	4.858E+03	18.19
2	18.00	18.65	19.07	17.98	18.00	18.91	18.70	8.823E+04	5.585E+03	15.80
3	17.70	17.37	17.86	17.57	17.73	17.58	17.64	8.937E+04	6.123E+03	14.60

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.61	8.35	1.56	2.23	2.31	6.84	2.27

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	20.37	23.07	19.92	20.15	20.04	22.35	20.99	8.851E+04	4.864E+03	18.20
2	18.77	18.65	19.10	17.98	18.79	18.91	18.70	8.836E+04	5.598E+03	15.78
3	17.71	17.37	17.86	17.56	17.73	17.59	17.64	8.947E+04	6.135E+03	14.58

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.77	8.08	1.59	2.25	2.30	6.48	2.28

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	18.66	20.91	18.57	18.59	18.44	20.28	19.24	7.082E+04	4.282E+03	16.54
2	17.29	17.10	17.56	16.49	17.14	17.53	17.19	7.069E+04	4.924E+03	14.36
3	16.00	15.80	16.26	16.02	16.11	16.04	16.04	7.164E+04	5.479E+03	13.08

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.75	8.09	1.57	2.23	2.28	6.49	2.26

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	18.66	20.94	18.57	18.60	18.44	20.29	19.25	7.121E+04	4.298E+03	16.57
2	17.31	17.09	17.59	16.53	17.17	17.53	17.20	7.109E+04	4.939E+03	14.39
3	16.01	15.81	16.26	16.02	16.09	16.01	16.03	7.205E+04	5.505E+03	13.09

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.25	7.60	1.62	2.24	2.26	6.15	2.25

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab			
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)			
1	16.71	18.44	16.89	16.74	16.52	17.84	17.19	5.429E+04	3.718E+03	14.50
2	15.59	15.36	15.90	14.91	15.38	15.89	15.50	5.419E+04	4.240E+03	12.78
3	14.45	14.40	14.76	14.63	14.64	14.52	14.57	5.494E+04	4.689E+03	11.72

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.22	7.60	1.61	2.25	2.26	6.15	2.25

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab			
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)			
1	16.71	18.43	16.91	16.73	16.63	17.85	17.21	5.430E+04	3.715E+03	14.62
2	15.59	15.39	15.88	14.92	15.37	15.90	15.51	5.420E+04	4.238E+03	12.79
3	14.46	14.44	14.80	14.63	14.65	14.53	14.58	5.492E+04	4.682E+03	11.73

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.97	7.58	1.65	2.25	2.22	6.06	2.23

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab			
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)			
1	13.11	14.02	13.48	13.17	12.61	13.58	13.33	3.265E+04	3.005E+03	10.87
2	12.75	12.66	13.08	12.38	12.41	12.96	12.71	3.258E+04	3.220E+03	10.12
3	12.28	12.30	12.78	12.69	12.46	12.41	12.49	3.303E+04	3.382E+03	9.77

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.97	7.58	1.65	2.26	2.23	6.07	2.24

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab			
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)			
1	13.04	14.05	13.50	13.16	12.67	13.59	13.33	3.261E+04	3.001E+03	10.87
2	12.76	12.67	13.10	12.36	12.43	12.97	12.71	3.255E+04	3.217E+03	10.12
3	12.28	12.31	12.80	12.70	12.46	12.43	12.50	3.300E+04	3.379E+03	9.77

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.13	7.70	1.64	2.22	2.20	6.16	2.21

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab			
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)			
1	9.85	10.25	10.02	9.89	9.42	9.95	9.90	1.689E+04	2.238E+03	7.54
2	10.48	10.40	10.56	10.11	10.05	10.51	10.35	1.687E+04	2.144E+03	7.87
3	10.52	10.54	10.98	10.90	10.61	10.68	10.70	1.713E+04	2.117E+03	8.09

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.13	7.70	1.63	2.21	2.18	6.15	2.19

Tube #	Wall	Temperatures (Deg C)		Tnave	Qdp	H	Thetab			
	1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)			
1	9.81	10.24	10.03	9.85	9.48	9.93	9.89	1.689E+04	2.237E+03	7.55
2	10.48	10.39	10.53	10.11	10.03	10.49	10.34	1.688E+04	2.144E+03	7.87
3	10.52	10.53	10.96	10.88	10.60	10.68	10.70	1.714E+04	2.116E+03	8.10

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.17	7.83	1.65	2.21	2.19	6.22	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.90	10.28	10.09	9.93	9.53	9.97	9.95	1.689E+04	2.221E+03	7.60
2	10.53	10.48	10.62	10.18	10.13	10.57	10.41	1.687E+04	2.126E+03	7.94
3	10.54	10.57	11.01	10.93	10.65	10.72	10.73	1.713E+04	2.107E+03	8.13

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.19	7.83	1.66	2.23	2.20	6.23	2.22			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.90	10.32	10.10	9.95	9.49	10.00	9.96	1.694E+04	2.228E+03	7.60
2	10.53	10.48	10.62	10.21	10.14	10.58	10.43	1.692E+04	2.131E+03	7.94
3	10.56	10.60	11.03	10.92	10.68	10.70	10.75	1.718E+04	2.113E+03	8.13

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.94	7.87	1.61	2.21	2.19	6.47	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.60	8.87	8.81	8.63	8.43	8.68	8.67	1.134E+04	1.783E+03	6.36
2	9.19	9.19	9.27	9.04	8.93	9.18	9.13	1.134E+04	1.695E+03	6.69
3	9.70	9.72	10.00	10.00	9.77	9.82	9.83	1.152E+04	1.586E+03	7.26

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.99	7.87	1.62	2.21	2.20	6.49	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.59	8.87	8.82	8.62	8.50	8.68	8.68	1.141E+04	1.794E+03	6.36
2	9.21	9.20	9.27	9.05	8.92	9.19	9.14	1.140E+04	1.703E+03	6.69
3	9.72	9.74	10.02	10.02	9.78	9.80	9.85	1.159E+04	1.594E+03	7.27

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.32	8.16	1.66	2.31	2.29	6.71	2.30			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.56	7.88	7.82	7.55	7.64	7.75	7.70	7.474E+02	1.408E+03	5.31
2	7.98	8.01	8.01	7.95	7.82	7.93	7.95	7.482E+02	1.378E+03	5.43
3	9.04	9.07	9.24	9.26	9.08	9.12	9.14	7.616E+02	1.175E+03	6.48

NOTE 15 X-Y pairs were stored in plot data file PD5MD44

Disk number = 10

File name DSMD45

This data set taken on 02 17 14 37 34

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.47	8.42	1.50	2.16	2.24	6.46	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	20.15	22.78	19.82	19.98	19.64	22.05	20.74	8.671E+04	4.808E+03	18.04
2	18.51	18.38	18.84	17.75	18.48	18.58	18.42	8.659E+04	5.553E+03	15.59
3	17.65	17.10	17.61	17.46	17.46	17.44	17.45	8.770E+04	6.054E+03	14.49
4	19.12	19.27	20.11	17.34	17.57	21.47	19.15	8.479E+04	5.278E+03	16.07

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.39	8.48	1.51	2.16	2.25	6.46	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	20.14	22.78	19.84	20.03	19.68	22.06	20.76	8.693E+04	4.818E+03	18.04
2	18.52	18.38	18.86	17.74	18.51	18.62	18.44	8.678E+04	5.563E+03	15.60
3	17.65	17.12	17.65	17.50	17.47	17.45	17.47	8.794E+04	6.066E+03	14.50
4	19.14	19.31	20.15	17.34	17.60	21.49	19.17	8.503E+04	5.287E+03	16.08

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.14	8.99	1.54	2.19	2.25	6.56	2.22

Tube #	Wall	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	19.15	21.54	19.02	19.07	18.73	20.84	19.73	7.596E+04	4.454E+03	17.05
2	17.67	17.51	18.02	16.93	17.62	17.83	17.60	7.582E+04	5.125E+03	14.79
3	16.71	16.23	16.65	16.57	16.60	16.61	16.56	7.676E+04	5.633E+03	13.63
4	18.06	17.98	18.85	16.36	16.62	20.11	18.00	7.422E+04	4.966E+03	14.94

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.13	9.01	1.56	2.21	2.26	6.57	2.23

Tube #	Wall	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	19.15	21.56	19.04	19.07	18.78	20.87	19.75	7.599E+04	4.454E+03	17.06
2	17.71	17.51	18.05	16.97	17.61	17.83	17.61	7.587E+04	5.126E+03	14.80
3	16.74	16.27	16.69	16.60	16.63	16.66	16.60	7.689E+04	5.632E+03	13.65
4	18.09	17.99	18.88	16.40	16.65	20.13	18.02	7.435E+04	4.969E+03	14.96

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.97	7.59	1.55	2.19	2.21	6.37	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2	3	4	5	6					
1	16.85	18.65	17.02	16.86	16.57	18.06	17.33	5.589E+04	3.779E+03	14.79
2	15.80	15.66	16.13	15.19	15.64	16.03	15.74	5.575E+04	4.266E+03	13.07
3	14.66	14.42	14.65	14.68	14.78	14.78	14.55	5.650E+04	4.764E+03	11.86
4	16.10	16.01	16.52	14.66	14.92	17.81	16.00	5.466E+04	4.179E+03	13.08

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.00	7.58	1.57	2.20	2.23	6.38	2.22

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	16.86	18.66	17.02	16.85	16.60	18.08	17.34	5.597E+04	3.786E+03	14.78
2	15.77	15.62	16.13	15.17	15.66	16.07	15.74	5.588E+04	4.283E+03	13.05
3	14.67	14.45	14.66	14.70	14.79	14.79	14.68	5.663E+04	4.778E+03	11.85
4	16.12	16.03	16.53	14.68	14.92	17.82	16.02	5.475E+04	4.187E+03	13.07

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.33	7.15	1.64	2.24	2.23	6.04	2.24

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	13.25	14.35	13.72	13.36	12.96	13.91	13.59	3.402E+04	3.059E+03	11.12
2	12.74	12.66	13.06	12.34	12.45	12.99	12.71	3.395E+04	3.360E+03	10.11
3	12.05	12.02	12.27	12.43	12.31	12.28	12.23	3.442E+04	3.625E+03	9.49
4	13.64	13.06	13.94	12.73	13.00	15.15	13.75	3.330E+04	3.055E+03	10.90

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.26	7.14	1.63	2.23	2.22	6.01	2.23

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	13.22	14.34	13.70	13.32	12.83	13.87	13.55	3.413E+04	3.078E+03	11.09
2	12.71	12.63	13.05	12.33	12.45	12.97	12.69	3.407E+04	3.373E+03	10.10
3	12.03	12.01	12.26	12.39	12.27	12.25	12.20	3.455E+04	3.645E+03	9.48
4	13.83	13.63	13.94	12.70	12.95	15.14	13.73	3.341E+04	3.069E+03	10.89

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.62	7.11	1.75	2.30	2.30	5.83	2.30

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.97	10.56	10.24	10.00	9.58	10.24	10.10	1.847E+04	2.415E+03	7.65
2	10.18	10.17	10.35	9.95	9.87	10.33	10.14	1.845E+04	2.439E+03	7.56
3	10.15	10.13	10.45	10.59	10.32	10.34	10.33	1.872E+04	2.458E+03	7.62
4	12.04	12.00	11.94	11.24	11.45	12.89	11.93	1.810E+04	1.991E+03	9.09

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.63	7.12	1.75	2.32	2.30	5.83	2.31

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.97	10.56	10.24	10.00	9.53	10.25	10.09	1.844E+04	2.417E+03	7.63
2	10.21	10.18	10.36	9.97	9.87	10.34	10.15	1.842E+04	2.435E+03	7.56
3	10.15	10.15	10.41	10.63	10.31	10.32	10.32	1.869E+04	2.457E+03	7.61
4	12.01	11.97	12.05	11.22	11.47	12.90	11.94	1.808E+04	1.989E+03	9.09

Data Set Number = 11

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.69	7.28	1.60	2.17	2.15	5.85	2.16

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	8.50	8.99	8.74	8.52	8.30	8.76	8.63	1.262E+04	1.985E+03	6.36
2	8.90	8.94	9.08	8.79	8.78	9.12	8.93	1.262E+04	1.933E+03	6.53
3	8.97	8.98	9.16	9.32	9.12	9.10	9.11	1.282E+04	1.951E+03	6.57
4	11.00	11.06	11.01	10.28	10.56	11.79	10.95	1.238E+04	1.495E+03	8.28

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.71	7.30	1.60	2.16	2.15	5.87	2.16

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	8.47	8.98	8.74	8.48	8.34	8.76	8.63	1.262E+04	1.986E+03	6.35
2	8.90	8.93	9.09	8.85	8.78	9.10	8.94	1.261E+04	1.929E+03	6.54
3	8.96	8.99	9.16	9.32	9.14	9.08	9.11	1.281E+04	1.950E+03	6.57
4	11.00	11.10	10.99	10.32	10.53	11.78	10.95	1.239E+04	1.495E+03	8.29

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.87	7.43	1.50	2.12	2.10	5.93	2.11

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	7.33	7.85	7.62	7.35	7.36	7.70	7.53	8.856E+03	1.665E+03	5.32
2	7.82	7.83	7.95	7.82	7.75	7.95	7.85	8.864E+03	1.609E+03	5.51
3	7.77	7.96	8.03	8.10	8.06	7.96	7.98	9.015E+03	1.638E+03	5.50
4	10.22	10.35	10.24	9.57	9.73	10.85	10.16	8.709E+03	1.152E+03	7.56

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.92	7.44	1.49	2.11	2.10	5.95	2.10

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	7.35	7.85	7.60	7.35	7.37	7.71	7.54	8.832E+03	1.657E+03	5.33
2	7.81	7.83	7.95	7.86	7.77	7.97	7.87	8.834E+03	1.598E+03	5.53
3	7.77	7.98	8.03	8.08	8.08	7.95	7.98	8.990E+03	1.631E+03	5.51
4	10.20	10.33	10.23	9.55	9.70	10.81	10.14	8.684E+03	1.151E+03	7.54

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.41	7.52	1.48	2.13	2.14	6.14	2.14

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
#	1	2	3	4	5	6				
1	6.25	6.68	6.45	6.22	6.32	6.58	6.42	5.660E+03	1.349E+03	4.19
2	6.55	6.59	6.67	6.64	6.47	6.59	6.58	5.673E+03	1.340E+03	4.23
3	6.56	6.81	6.90	6.81	6.88	6.82	6.80	5.778E+03	1.339E+03	4.32
4	9.31	9.47	9.36	8.80	8.94	9.77	9.28	5.576E+03	8.364E+02	6.67

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.48	7.53	1.48	2.13	2.13	6.17	2.13

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.23	6.68	6.44	6.22	6.34	6.58	6.42	5.675E+03	1.352E+03	4.20
2	6.57	6.61	6.66	6.64	6.48	6.60	6.59	5.685E+03	1.338E+03	4.25
3	6.60	6.83	6.92	6.81	6.89	6.85	6.82	5.792E+03	1.334E+03	4.34
4	9.30	9.44	9.34	8.79	8.91	9.77	9.26	5.592E+03	8.401E+02	6.66

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.33	8.63	1.59	2.27	2.29	6.85	2.28

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	5.38	5.60	5.47	5.34	5.46	5.56	5.47	3.213E+03	1.032E+03	3.11
2	5.73	5.80	5.77	5.77	5.61	5.66	5.72	3.225E+03	9.952E+02	3.24
3	5.88	6.05	6.21	6.02	6.09	6.13	6.06	3.291E+03	9.537E+02	3.45
4	8.45	8.52	8.54	7.93	8.01	8.73	8.36	3.177E+03	5.650E+02	5.62

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.37	8.76	1.59	2.26	2.28	6.91	2.27

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	5.36	5.57	5.44	5.34	5.44	5.52	5.44	3.213E+03	1.037E+03	3.10
2	5.74	5.78	5.73	5.74	5.57	5.62	5.70	3.228E+03	1.002E+03	3.22
3	5.82	6.02	6.19	6.02	6.05	6.12	6.04	3.295E+03	9.599E+02	3.43
4	8.45	8.51	8.55	7.93	8.01	8.71	8.36	3.179E+03	5.649E+02	5.63

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.81	9.87	1.45	2.21	2.14	7.38	2.17

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	4.12	4.32	4.23	4.12	4.27	4.31	4.23	1.561E+03	7.853E+02	1.99
2	4.55	4.59	4.68	4.67	4.62	4.62	4.62	1.574E+03	6.995E+02	2.25
3	5.32	5.32	5.24	5.42	5.34	5.20	5.31	1.609E+03	5.728E+02	2.81
4	6.96	6.62	7.02	6.52	6.55	6.97	6.81	1.551E+03	3.710E+02	4.18

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.67	9.90	1.44	2.20	2.13	7.39	2.17

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	4.11	4.29	4.22	4.10	4.25	4.30	4.21	1.565E+03	7.902E+02	1.98
2	4.54	4.58	4.65	4.65	4.58	4.60	4.60	1.578E+03	7.033E+02	2.24
3	5.28	5.32	5.23	5.38	5.34	5.19	5.29	1.614E+03	5.756E+02	2.80
4	6.92	6.83	6.99	6.48	6.54	6.97	6.79	1.556E+03	3.730E+02	4.17

NOTE 20 X-Y pairs were stored in plot data file PDSMD45

Disk number = 10  
 File name: DSM046  
 This data set taken on : 02.17.21.13.59

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.73	6.08	1.47	2.20	2.19	5.10	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	20.21	22.89	19.86	20.03	19.82	22.17	20.83	8.782E+04	4.844E+03	18.13
2	18.58	18.45	18.99	17.83	18.59	18.71	18.52	8.770E+04	5.588E+03	15.69
3	17.65	17.17	17.71	17.48	17.54	17.46	17.50	8.880E+04	6.109E+03	14.54
4	19.54	19.76	20.37	17.58	17.84	21.85	19.49	8.587E+04	5.232E+03	16.41
5	24.26	22.76	21.83	19.31	22.65	23.17	22.33	8.711E+04	4.557E+03	19.12

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.73	6.11	1.47	2.18	2.18	5.10	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	20.15	22.91	19.85	20.01	19.70	22.16	20.80	8.780E+04	4.849E+03	18.11
2	18.59	18.43	18.96	17.84	18.59	18.66	18.51	8.766E+04	5.585E+03	15.69
3	17.66	17.19	17.72	17.48	17.53	17.44	17.50	8.882E+04	6.104E+03	14.55
4	19.54	19.78	20.35	17.56	17.81	21.84	19.48	8.589E+04	5.233E+03	16.41
5	24.26	22.73	21.83	19.29	22.64	23.17	22.32	8.709E+04	4.556E+03	19.12

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.92	6.25	1.41	2.13	2.13	5.20	2.13

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	19.07	21.50	18.97	19.01	18.68	20.85	19.68	7.728E+04	4.520E+03	17.10
2	17.68	17.56	18.05	16.99	17.64	17.83	17.62	7.716E+04	5.175E+03	14.91
3	16.69	16.30	16.77	16.56	16.65	16.60	16.60	7.814E+04	5.683E+03	13.75
4	18.51	18.17	19.09	16.47	16.77	20.30	18.22	7.555E+04	4.952E+03	15.26
5	22.28	20.76	20.12	17.91	20.95	21.35	20.56	7.666E+04	4.389E+03	17.47

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.92	6.25	1.41	2.11	2.13	5.20	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	19.13	21.55	18.97	19.05	18.73	20.88	19.72	7.727E+04	4.509E+03	17.14
2	17.70	17.56	18.05	17.81	17.64	17.84	17.63	7.716E+04	5.171E+03	14.92
3	16.69	16.30	16.76	16.57	16.65	16.61	16.60	7.815E+04	5.682E+03	13.75
4	18.51	18.19	19.09	16.48	16.77	20.30	18.22	7.556E+04	4.950E+03	15.27
5	22.32	20.80	20.13	17.91	20.96	21.36	20.58	7.664E+04	4.382E+03	17.49

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.90	5.95	1.65	2.33	2.32	5.17	2.32

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	16.99	18.83	17.11	16.97	16.57	18.22	17.45	5.697E+04	3.857E+03	14.77
2	15.99	15.87	16.25	15.43	15.91	16.19	15.96	5.688E+04	4.325E+03	13.15
3	14.90	14.65	14.96	14.92	14.99	15.01	14.91	5.764E+04	4.816E+03	11.97
4	16.57	15.91	16.77	14.65	14.95	17.76	16.11	5.574E+04	4.272E+03	13.05
5	19.18	17.95	17.44	15.88	18.25	16.61	17.89	5.652E+04	3.846E+03	14.69

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.89	5.93	1.67	2.33	2.33	5.16	2.33			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.98	18.82	17.14	16.98	16.60	18.23	17.46	5.698E+04	3.856E+03	14.78
2	16.02	15.89	16.36	15.43	15.90	16.22	15.97	5.688E+04	4.323E+03	13.16
3	14.91	14.67	14.99	14.94	14.99	15.02	14.92	5.766E+04	4.814E+03	11.98
4	16.57	15.93	16.79	14.69	14.99	17.77	16.12	5.576E+04	4.270E+03	13.06
5	19.21	17.99	17.47	15.92	18.32	18.63	17.92	5.656E+04	3.841E+03	14.73

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.91	5.81	1.57	2.20	2.20	5.10	2.20			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	13.35	14.49	13.75	13.45	12.99	14.02	13.67	3.493E+04	3.109E+03	11.23
2	12.90	12.89	13.29	12.61	12.77	13.20	12.94	3.488E+04	3.362E+03	10.37
3	11.93	11.88	12.09	12.19	12.15	12.16	12.06	3.535E+04	3.774E+03	9.36
4	13.70	13.35	13.73	12.31	12.62	14.53	13.37	3.419E+04	3.240E+03	10.55
5	15.52	14.88	14.41	13.49	15.06	15.46	14.80	3.470E+04	2.929E+03	11.85

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.92	5.81	1.58	2.20	2.21	5.10	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	13.40	14.53	13.77	13.46	13.09	14.06	13.72	3.488E+04	3.094E+03	11.27
2	12.89	12.88	13.30	12.61	12.82	13.19	12.95	3.481E+04	3.355E+03	10.38
3	11.93	11.89	12.11	12.21	12.16	12.19	12.08	3.528E+04	3.763E+03	9.38
4	13.71	13.35	13.72	12.33	12.61	14.54	13.38	3.413E+04	3.235E+03	10.55
5	15.53	14.89	14.43	13.52	15.11	15.50	14.83	3.465E+04	2.919E+03	11.87

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.05	5.38	1.69	2.26	2.27	5.04	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.69	10.32	9.92	9.73	9.26	10.03	9.83	1.860E+04	2.510E+03	7.41
2	9.74	9.73	9.93	9.46	9.57	9.99	9.74	1.858E+04	2.583E+03	7.19
3	9.75	9.67	9.92	10.17	9.91	9.80	9.88	1.887E+04	2.616E+03	7.21
4	11.35	11.20	11.34	10.53	10.70	11.87	11.17	1.824E+04	2.179E+03	8.37
5	12.67	12.41	12.17	11.60	12.46	12.85	12.36	1.851E+04	1.963E+03	9.43

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.09	5.38	1.70	2.26	2.27	5.05	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.67	10.30	9.91	9.73	9.26	10.03	9.82	1.862E+04	2.517E+03	7.40
2	9.75	9.73	9.93	9.48	9.60	10.01	9.75	1.860E+04	2.582E+03	7.20
3	9.75	9.64	9.91	10.17	9.93	9.87	9.88	1.888E+04	2.622E+03	7.20
4	11.44	11.12	11.31	10.56	10.70	11.92	11.19	1.626E+04	2.181E+03	8.37
5	12.67	12.42	12.17	11.60	12.46	12.86	12.36	1.853E+04	1.965E+03	9.43

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.33	5.46	1.63	2.19	2.21	5.14	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.29	8.73	8.43	8.31	7.98	8.55	8.38	1.274E+04	2.101E+03	6.06
2	8.46	8.51	8.67	8.41	8.44	8.69	8.53	1.273E+04	2.095E+03	6.08
3	8.80	8.77	8.85	9.20	8.96	8.81	8.90	1.294E+04	2.048E+03	6.32
4	10.07	10.03	10.03	9.48	9.59	10.54	9.96	1.251E+04	1.725E+03	7.25
5	11.41	11.33	11.10	10.60	11.20	11.62	11.21	1.269E+04	1.516E+03	8.37

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.38	5.47	1.62	2.18	2.21	5.16	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.29	8.75	8.44	8.31	7.97	8.54	8.38	1.273E+04	2.098E+03	6.07
2	8.48	8.53	8.67	8.38	8.44	8.69	8.53	1.272E+04	2.090E+03	6.09
3	8.79	8.78	8.88	9.17	8.97	8.84	8.91	1.293E+04	2.043E+03	6.33
4	10.11	10.02	10.03	9.46	9.60	10.49	9.95	1.250E+04	1.723E+03	7.25
5	11.41	11.32	11.11	10.61	11.20	11.63	11.21	1.268E+04	1.513E+03	8.38

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.66	5.63	1.54	2.11	2.19	5.28	2.15

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.28	7.65	7.37	7.27	7.05	7.55	7.36	9.056E+03	1.774E+03	5.11
2	7.61	7.67	7.83	7.60	7.63	7.79	7.69	9.062E+03	1.708E+03	5.30
3	7.95	8.02	8.00	8.26	8.13	7.95	8.05	9.217E+03	1.664E+03	5.54
4	8.77	8.83	8.80	8.45	8.54	9.14	8.75	9.906E+03	1.457E+03	6.11
5	10.36	10.39	10.25	9.88	10.31	10.67	10.31	9.036E+03	1.198E+03	7.54

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.68	5.64	1.54	2.10	2.18	5.29	2.14

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.27	7.67	7.37	7.27	7.08	7.57	7.37	9.047E+03	1.765E+03	5.13
2	7.58	7.66	7.82	7.63	7.61	7.79	7.68	9.054E+03	1.706E+03	5.31
3	7.93	8.01	7.98	8.25	8.14	7.95	8.04	9.207E+03	1.662E+03	5.54
4	8.76	8.83	8.79	8.43	8.51	9.13	8.74	9.998E+03	1.457E+03	6.11
5	10.35	10.37	10.24	9.86	10.29	10.65	10.30	9.028E+03	1.198E+03	7.53

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.89	5.82	1.54	2.16	2.28	5.45	2.22

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.39	6.71	6.41	6.36	6.29	6.67	6.47	5.849E+03	1.404E+03	4.17
2	6.73	6.80	6.91	6.74	6.79	6.86	6.81	5.861E+03	1.341E+03	4.37
3	7.07	7.05	7.17	7.31	7.12	7.11	7.14	5.973E+03	1.306E+03	4.57
4	7.39	7.59	7.44	7.33	7.40	7.76	7.48	5.766E+03	1.204E+03	4.79
5	9.41	9.53	9.46	9.14	9.44	9.73	9.45	5.848E+03	8.821E+02	6.63

Date Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.92	5.95	1.55	2.16	2.28	5.47	2.22			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> .K)	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.38	6.71	6.44	6.36	6.31	6.66	6.48	5.848E+03	1.401E+03	4.17
2	6.74	6.81	6.89	6.76	6.77	6.87	6.81	5.862E+03	1.341E+03	4.37
3	7.07	7.06	7.17	7.32	7.14	7.11	7.15	5.973E+03	1.304E+03	4.58
4	7.40	7.60	7.44	7.33	7.39	7.75	7.48	5.766E+03	1.204E+03	4.79
5	9.42	9.53	9.45	9.14	9.44	9.74	9.45	5.848E+03	8.819E+02	6.63

Date Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.12	6.32	1.45	2.13	2.19	5.63	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.16	5.52	5.18	5.11	5.14	5.53	5.27	3.315E+03	1.092E+03	3.04
2	5.57	5.62	5.67	5.59	5.69	5.70	5.64	3.330E+03	1.017E+03	3.28
3	6.08	5.97	6.10	6.24	6.00	6.02	6.07	3.397E+03	9.505E+02	3.57
4	6.22	6.41	6.29	6.31	6.36	6.51	6.35	3.279E+03	8.795E+02	3.73
5	8.18	8.32	8.33	7.99	8.16	8.50	8.25	3.325E+03	6.052E+02	5.49

Date Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.13	6.36	1.45	2.14	2.20	5.65	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> .K)	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.16	5.56	5.20	5.11	5.16	5.55	5.29	3.305E+03	1.085E+03	3.05
2	5.57	5.61	5.67	5.59	5.69	5.71	5.64	3.321E+03	1.016E+03	3.27
3	6.08	5.97	6.10	6.23	6.02	6.03	6.07	3.390E+03	9.504E+02	3.57
4	6.23	6.43	6.29	6.34	6.39	6.52	6.37	3.270E+03	8.750E+02	3.74
5	8.19	8.34	8.35	7.99	8.16	8.51	8.26	3.315E+03	6.033E+02	5.50

Date Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.34	7.55	1.42	2.18	2.23	6.11	2.21			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
1	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.09	4.28	4.15	4.05	4.16	4.27	4.16	1.573E+03	8.314E+02	1.89
2	4.46	4.50	4.59	4.56	4.59	4.59	4.54	1.587E+03	7.406E+02	2.14
3	5.22	5.11	5.05	5.30	5.14	5.01	5.14	1.624E+03	6.221E+02	2.61
4	5.72	5.83	5.77	5.51	5.55	5.92	5.72	1.564E+03	5.118E+02	3.06
5	6.59	6.71	6.61	6.44	6.52	6.86	6.66	1.587E+03	4.101E+02	3.87

Date Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.36	7.54	1.42	2.18	2.22	6.14	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.05	4.27	4.12	4.02	4.15	4.25	4.14	1.572E+03	8.370E+02	1.88
2	4.44	4.46	4.55	4.53	4.54	4.56	4.52	1.585E+03	7.461E+02	2.12
3	5.19	5.09	5.02	5.27	5.12	4.99	5.11	1.621E+03	6.265E+02	2.59
4	5.73	5.83	5.80	5.52	5.57	5.93	5.73	1.563E+03	5.081E+02	3.08
5	6.54	6.64	6.74	6.36	6.46	6.81	6.59	1.585E+03	4.160E+02	3.81

NOTE: 20 pairs were stored in plot data file POSMO4E

Dist number = 10  
 File name: DSMD47  
 This data set taken on : 02:17:20:13:16

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.06	4.73	1.59	2.30	2.23	4.13	2.27

Tube #	Wall	Temperatures (Deg C)		Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)			
	1	2	3	4	5	6				
1	20.21	23.20	20.12	20.12	19.78	22.56	21.00	8.882E+04	4.876E+03	18.22
2	18.79	18.62	19.17	18.00	18.80	18.91	18.71	8.869E+04	5.612E+03	15.80
3	17.97	17.63	18.01	17.74	17.98	17.74	17.84	8.987E+04	6.073E+03	14.80
4	19.51	19.74	20.39	17.53	17.84	21.91	19.49	8.695E+04	5.326E+03	16.33
5	24.50	23.08	22.25	19.84	23.17	23.59	22.74	8.814E+04	4.533E+03	19.44

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.98	4.69	1.61	2.32	2.23	4.09	2.28

Tube #	Wall	Temperatures (Deg C)		Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)			
	1	2	3	4	5	6				
1	20.29	23.26	20.16	20.19	19.83	22.62	21.06	8.904E+04	4.875E+03	18.27
2	18.84	18.64	19.25	18.07	18.83	18.99	18.77	8.888E+04	5.608E+03	15.85
3	17.96	17.62	18.03	17.79	17.99	17.72	17.85	9.007E+04	6.088E+03	14.80
4	19.54	19.75	20.43	17.53	17.85	21.95	19.51	8.712E+04	5.332E+03	16.34
5	24.55	23.11	22.28	19.88	23.21	23.60	22.77	8.831E+04	4.536E+03	19.47

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.64	4.62	1.54	2.24	2.17	3.93	2.21

Tube #	Wall	Temperatures (Deg C)		Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)			
	1	2	3	4	5	6				
1	18.84	21.44	18.84	18.78	18.68	20.79	19.56	7.530E+04	4.453E+03	16.91
2	17.52	17.38	17.91	16.87	17.46	17.70	17.47	7.520E+04	5.119E+03	14.69
3	16.43	16.13	16.59	16.37	16.45	16.42	16.40	7.619E+04	5.651E+03	13.48
4	18.02	17.73	18.65	16.12	16.40	19.82	17.79	7.368E+04	4.992E+03	14.76
5	21.84	20.33	19.76	17.80	20.77	20.90	20.23	7.474E+04	4.379E+03	17.07

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.63	4.61	1.54	2.24	2.17	3.93	2.20

Tube #	Wall	Temperatures (Deg C)		Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)			
	1	2	3	4	5	6				
1	18.83	21.39	18.86	18.76	18.39	20.78	19.50	7.531E+04	4.469E+03	16.85
2	17.55	17.36	17.89	16.83	17.45	17.66	17.46	7.521E+04	5.123E+03	14.68
3	16.44	16.17	16.60	16.37	16.47	16.41	16.41	7.620E+04	5.647E+03	13.49
4	18.04	17.75	18.65	16.11	16.40	19.84	17.80	7.366E+04	4.988E+03	14.77
5	21.85	20.32	19.77	17.76	20.78	20.93	20.23	7.472E+04	4.377E+03	17.07

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	5.81	4.75	1.49	2.16	2.12	4.02	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.83	17.74	16.11	15.82	15.61	17.21	16.39	5.257E+04	3.777E+03	13.92
2	15.13	15.05	15.51	14.65	15.05	15.31	15.12	5.249E+04	4.193E+03	12.52
3	14.13	14.04	14.34	14.27	14.28	14.26	14.22	5.319E+04	4.629E+03	11.49
4	15.52	15.05	15.77	13.90	14.10	15.61	15.16	5.143E+04	4.178E+03	12.31
5	18.09	16.84	16.32	15.00	17.32	17.31	16.81	5.218E+04	3.773E+03	13.83

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	5.85	4.76	1.49	2.15	2.10	4.03	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.80	17.68	16.10	15.79	15.54	17.15	16.35	5.270E+04	3.795E+03	13.89
2	15.14	15.05	15.50	14.63	15.04	15.31	15.11	5.259E+04	4.199E+03	12.52
3	14.13	14.02	14.34	14.27	14.29	14.28	14.22	5.330E+04	4.634E+03	11.50
4	15.52	15.06	15.76	13.91	14.09	16.60	15.16	5.156E+04	4.186E+03	12.32
5	18.11	16.84	16.34	15.01	17.31	17.31	16.82	5.229E+04	3.776E+03	13.85

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.37	5.46	1.57	2.16	2.12	4.47	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.20	13.41	12.61	12.16	12.10	12.95	12.57	3.108E+04	3.043E+03	10.21
2	12.01	12.05	12.40	11.82	11.85	12.18	12.05	3.105E+04	3.246E+03	9.56
3	11.11	11.18	11.44	11.49	11.42	11.41	11.34	3.148E+04	3.607E+03	8.73
4	12.37	12.08	12.28	11.28	11.34	13.00	12.05	3.044E+04	3.268E+03	9.32
5	14.35	13.61	13.28	12.57	13.91	14.16	13.68	3.090E+04	2.860E+03	10.81

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidev			
	6.41	5.53	1.56	2.16	2.11	4.50	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.25	13.38	12.62	12.21	12.03	12.92	12.57	3.109E+04	3.043E+03	10.22
2	12.02	12.03	12.39	11.81	11.84	12.18	12.04	3.105E+04	3.248E+03	9.56
3	11.12	11.17	11.44	11.47	11.40	11.41	11.34	3.150E+04	3.610E+03	8.73
4	12.36	12.08	12.27	11.28	11.40	13.00	12.07	3.047E+04	3.265E+03	9.33
5	14.34	13.61	13.28	12.58	13.91	14.13	13.67	3.090E+04	2.859E+03	10.81

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.58	5.85	1.59	2.13	2.11	4.41	2.12			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.21	9.15	8.60	8.20	8.15	8.87	8.53	1.593E+04	2.540E+03	6.27
2	8.38	8.39	8.58	8.27	8.22	8.60	8.40	1.592E+04	2.646E+03	6.02
3	8.52	8.54	8.71	8.85	8.72	8.68	8.67	1.617E+04	2.627E+03	6.15
4	9.56	9.29	9.41	8.97	9.05	9.96	9.39	1.564E+04	2.317E+03	6.75
5	11.35	11.32	11.02	10.57	11.19	11.53	11.16	1.585E+04	1.891E+03	8.39

Data Set Number = 10

		Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
		6.53	5.04	1.64	2.17	2.16	4.40	2.16		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1 2 3 4 5 6 (Deg C)					(W/m^2)	(W/m^2.K)	(K)	(K)	
1	8.25 9.18 8.64 8.25 8.16 8.92 8.56					1.595E+04	2.546E+03	6.26		
2	8.45 8.45 8.62 8.31 8.26 8.63 8.45					1.594E+04	2.647E+03	6.02		
3	8.55 8.61 8.76 8.90 8.78 8.73 8.72					1.618E+04	2.627E+03	6.16		
4	9.64 9.49 9.47 9.07 9.08 9.98 9.46					1.565E+04	2.311E+03	6.77		
5	11.39 11.38 11.01 10.65 11.25 11.56 11.21					1.588E+04	1.892E+03	8.39		

Data Set Number = 11

		Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
		6.28	5.07	1.59	2.11	2.13	4.31	2.12		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1 2 3 4 5 6 (Deg C)					(W/m^2)	(W/m^2.K)	(K)	(K)	
1	6.85 7.57 7.10 6.84 6.73 7.40 7.08					1.080E+04	2.226E+03	4.85		
2	7.20 7.24 7.28 7.10 7.17 7.35 7.22					1.080E+04	2.223E+03	4.86		
3	7.60 7.62 7.73 7.85 7.72 7.69 7.70					1.099E+04	2.108E+03	5.21		
4	8.33 8.31 8.21 7.99 8.05 8.67 8.26					1.061E+04	1.881E+03	5.64		
5	10.03 10.17 9.87 9.50 9.87 10.27 9.95					1.076E+04	1.493E+03	7.21		

Data Set Number = 12

		Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
		6.27	5.06	1.59	2.12	2.14	4.31	2.13		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1 2 3 4 5 6 (Deg C)					(W/m^2)	(W/m^2.K)	(K)	(K)	
1	6.87 7.58 7.11 6.86 6.73 7.42 7.09					1.080E+04	2.224E+03	4.86		
2	7.20 7.23 7.28 7.10 7.19 7.38 7.23					1.080E+04	2.223E+03	4.86		
3	7.63 7.61 7.74 7.89 7.74 7.69 7.72					1.098E+04	2.104E+03	5.22		
4	8.41 8.34 8.28 8.01 8.05 8.72 8.30					1.061E+04	1.869E+03	5.68		
5	10.03 10.16 9.88 9.49 9.88 10.30 9.96					1.076E+04	1.494E+03	7.20		

Data Set Number = 13

		Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
		6.28	5.08	1.58	2.13	2.17	4.31	2.15		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1 2 3 4 5 6 (Deg C)					(W/m^2)	(W/m^2.K)	(K)	(K)	
1	6.00 6.57 6.18 6.00 5.91 6.49 6.19					7.618E+03	1.931E+03	3.95		
2	6.44 6.50 6.51 6.37 6.47 6.60 6.48					7.635E+03	1.860E+03	4.11		
3	6.97 6.93 7.02 7.18 7.04 6.95 7.02					7.771E+03	1.722E+03	4.51		
4	7.39 7.41 7.35 7.19 7.23 7.69 7.38					7.501E+03	1.581E+03	4.74		
5	9.03 9.22 9.00 8.59 8.85 9.31 9.00					7.607E+03	1.219E+03	6.24		

Data Set Number = 14

		Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
		6.28	5.07	1.56	2.12	2.16	4.30	2.14		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1 2 3 4 5 6 (Deg C)					(W/m^2)	(W/m^2.K)	(K)	(K)	
1	5.97 6.59 6.16 5.99 5.92 6.50 6.19					7.639E+03	1.932E+03	3.95		
2	6.44 6.49 6.52 6.37 6.50 6.60 6.49					7.652E+03	1.855E+03	4.12		
3	6.99 6.94 7.03 7.19 7.07 6.99 7.04					7.788E+03	1.714E+03	4.54		
4	7.41 7.39 7.33 7.13 7.25 7.69 7.37					7.521E+03	1.584E+03	4.75		
5	9.01 9.20 8.98 8.59 8.83 9.30 8.99					7.628E+03	1.223E+03	6.24		

Data Set Number = 15

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.36	5.22	1.46	2.10	2.16	4.35	2.13			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.17	5.51	5.29	5.20	5.12	5.47	5.29	4.823E+03	1.565E+03	3.08
2	5.54	5.60	5.70	5.66	5.60	5.70	5.63	4.841E+03	1.470E+03	3.29
3	6.16	6.18	6.13	6.34	6.26	6.09	6.19	4.932E+03	1.326E+03	3.72
4	6.63	6.64	6.67	6.36	6.39	6.84	6.59	4.760E+03	1.193E+03	3.99
5	7.50	7.68	7.50	7.20	7.35	7.71	7.49	4.830E+03	1.014E+03	4.76

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.38	5.26	1.47	2.11	2.17	4.37	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.15	5.52	5.30	5.16	5.12	5.48	5.29	4.822E+03	1.571E+03	3.07
2	5.58	5.62	5.70	5.69	5.61	5.70	5.65	4.839E+03	1.465E+03	3.30
3	6.18	6.20	6.16	6.36	6.28	6.11	6.21	4.929E+03	1.320E+03	3.74
4	6.65	6.66	6.68	6.40	6.44	6.84	6.61	4.760E+03	1.189E+03	4.00
5	7.58	7.76	7.67	7.28	7.43	7.86	7.59	4.826E+03	9.930E+02	4.86

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.73	5.40	1.50	2.19	2.28	4.55	2.24			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.36	4.65	4.43	4.36	4.38	4.62	4.46	2.591E+03	1.201E+03	2.16
2	4.69	4.71	4.83	4.78	4.86	4.87	4.79	2.607E+03	1.107E+03	2.35
3	5.34	5.26	5.17	5.45	5.30	5.12	5.27	2.662E+03	9.835E+02	2.71
4	5.63	5.64	5.68	5.45	5.49	5.80	5.61	2.569E+03	8.797E+02	2.92
5	6.10	6.02	6.19	5.93	6.01	6.30	6.13	2.604E+03	7.862E+02	3.30

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.80	5.41	1.51	2.21	2.29	4.57	2.25			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.38	4.65	4.46	4.38	4.40	4.64	4.49	2.589E+03	1.195E+03	2.17
2	4.71	4.74	4.84	4.81	4.89	4.91	4.82	2.605E+03	1.100E+03	2.37
3	5.36	5.30	5.21	4.88	5.32	5.17	5.31	2.661E+03	9.750E+02	2.73
4	5.67	5.70	5.72	4.49	5.52	5.83	5.65	2.565E+03	8.698E+02	2.95
5	6.15	6.27	6.24	5.98	6.06	6.35	6.17	2.601E+03	7.787E+02	3.34

Data Set Number = 19

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.66	5.59	1.44	2.20	2.27	4.80	2.23			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	3.61	3.74	3.69	3.61	3.70	3.72	3.66	1.290E+03	9.332E+02	1.38
2	3.92	3.92	3.95	3.97	3.92	3.94	3.94	1.303E+03	8.637E+02	1.51
3	4.29	4.36	4.29	4.27	4.38	4.27	4.33	1.335E+03	7.532E+02	1.77
4	4.66	4.53	4.71	4.57	4.60	4.60	4.60	1.286E+03	6.647E+02	1.93
5	4.80	4.69	5.00	4.86	4.91	5.05	4.92	1.303E+03	6.189E+02	2.11

Data Set Number = 20

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	7.74	5.59	1.44	2.19	2.26	4.92	2.22			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.62	3.76	3.69	3.61	3.72	3.74	3.69	1.286E+03	9.164E+02	1.40
2	3.94	3.94	3.98	3.99	3.92	3.95	3.95	1.300E+03	8.453E+02	1.54
3	4.31	4.38	4.32	4.38	4.40	4.31	4.35	1.331E+03	7.384E+02	1.80
4	4.69	4.55	4.73	4.60	4.64	4.63	4.64	1.282E+03	6.525E+02	1.97
5	4.83	4.92	5.02	4.89	4.94	5.08	4.95	1.300E+03	6.064E+02	2.14

NOTE: 20 X-Y pairs were stored in plot data file PDSMD47

Dist number = 10

File name: DSMD48

This data set taken on : 02:17:18:58:12

Data Set Number = 1

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dev			
	5.54	4.79	1.54	2.28	2.24	3.95	2.26			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.00	17.81	16.70	16.04	16.12	17.30	16.66	4.935E+04	3.503E+03	14.09
2	15.19	15.18	16.00	15.32	15.36	15.54	15.43	4.928E+04	3.871E+03	12.73
3	14.11	14.32	14.20	14.33	14.59	14.12	14.28	4.994E+04	4.365E+03	11.44
4	15.94	15.00	16.21	14.26	14.36	16.46	15.37	4.829E+04	3.890E+03	12.41
5	17.82	16.78	16.17	14.95	17.07	17.19	16.66	4.899E+04	3.609E+03	13.58

Data Set Number = 2

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	5.50	4.75	1.55	2.30	2.26	3.93	2.28			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.99	17.86	16.71	16.03	15.94	17.33	16.64	4.937E+04	3.513E+03	14.05
2	15.22	15.19	15.98	15.33	15.35	15.55	15.44	4.930E+04	3.876E+03	12.72
3	14.13	14.34	14.22	14.34	14.59	14.13	14.29	4.998E+04	4.369E+03	11.44
4	15.95	15.01	16.23	14.28	14.38	16.49	15.39	4.832E+04	3.891E+03	12.42
5	17.85	16.80	16.21	15.01	17.09	17.21	16.70	4.901E+04	3.606E+03	13.59

Data Set Number = 3

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	6.12	5.26	1.59	2.28	2.23	4.32	2.26			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.09	13.52	12.85	12.11	12.40	13.16	12.69	2.940E+04	2.876E+03	10.22
2	11.90	11.97	12.49	12.01	11.82	12.19	12.06	2.937E+04	3.103E+03	9.46
3	11.25	11.55	11.61	11.71	11.78	11.47	11.56	2.978E+04	3.370E+03	8.84
4	12.59	12.08	12.47	11.56	11.63	12.93	12.21	2.879E+04	3.077E+03	9.26
5	14.01	13.64	13.11	12.49	13.68	13.95	13.48	2.922E+04	2.784E+03	10.50

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.14	5.26	1.58	2.28	2.24	4.33	2.26

Tube #	Well Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.11	13.54	12.87	12.11	12.35	13.16	12.69	2.941E+04	2.878E+03	10.22
2	11.93	11.99	12.48	11.99	11.80	12.19	12.06	2.937E+04	3.104E+03	9.46
3	11.26	11.54	11.60	11.71	11.78	11.47	11.56	2.978E+04	3.373E+03	8.83
4	12.65	11.97	12.58	11.62	11.67	13.01	12.25	2.880E+04	3.066E+03	9.39
5	14.01	13.62	13.09	12.51	13.70	13.94	13.48	2.923E+04	2.786E+03	10.49

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.84	6.11	1.59	2.17	2.15	4.85	2.16

Tube #	Well Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.83	8.70	8.24	7.80	7.92	8.44	8.16	1.422E+04	2.422E+03	5.87
2	7.90	7.93	8.17	7.95	7.73	8.08	7.96	1.422E+04	2.565E+03	5.54
3	8.13	8.25	8.25	8.50	8.43	8.18	8.29	1.444E+04	2.514E+03	5.74
4	8.80	8.63	8.70	8.44	8.42	9.12	8.69	1.396E+04	2.322E+03	6.01
5	10.73	10.81	10.41	9.92	10.37	10.87	10.52	1.416E+04	1.836E+03	7.71

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.93	6.20	1.59	2.16	2.15	4.91	2.16

Tube #	Well Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.83	8.70	8.24	7.81	7.95	8.46	8.17	1.420E+04	2.414E+03	5.88
2	7.92	7.94	8.18	7.94	7.72	8.09	7.96	1.420E+04	2.560E+03	5.55
3	8.15	8.26	8.25	8.51	8.45	8.18	8.30	1.443E+04	2.505E+03	5.76
4	8.86	8.62	8.74	8.45	8.43	9.11	8.70	1.395E+04	2.312E+03	6.03
5	10.74	10.84	10.44	9.97	10.39	10.86	10.54	1.415E+04	1.827E+03	7.74

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.31	5.97	1.62	2.20	2.17	4.97	2.18

Tube #	Well Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.39	6.96	6.66	6.37	6.44	6.78	6.60	9.600E+03	2.227E+03	4.31
2	6.62	6.62	6.76	6.59	6.43	6.71	6.62	9.609E+03	2.286E+03	4.20
3	7.07	7.14	7.17	7.34	7.25	7.10	7.18	9.771E+03	2.110E+03	4.62
4	7.76	7.74	7.90	7.60	7.59	8.10	7.77	9.438E+03	1.853E+03	5.09
5	9.67	9.80	9.44	8.78	9.05	9.75	9.41	9.576E+03	1.450E+03	6.60

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.33	5.95	1.62	2.20	2.17	4.97	2.19

Tube #	Well Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.39	6.96	6.67	6.36	6.45	6.77	6.60	9.592E+03	2.228E+03	4.31
2	6.62	6.65	6.75	6.55	6.44	6.67	6.62	9.603E+03	2.290E+03	4.19
3	7.00	7.14	7.21	7.26	7.26	7.14	7.17	9.771E+03	2.117E+03	4.62
4	7.85	7.63	7.80	7.63	7.58	8.07	7.76	9.432E+03	1.855E+03	5.08
5	9.57	9.70	9.40	8.78	9.05	9.73	9.37	9.569E+03	1.459E+03	6.56

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	6.95	5.94	1.63	2.22	2.26	4.84	2.24			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.69	6.23	5.94	5.68	5.78	6.11	5.90	6.932E+03	1.939E+03	3.57
2	6.04	6.07	6.27	6.08	6.05	6.21	6.12	6.945E+03	1.898E+03	3.66
3	6.64	6.70	6.57	6.84	6.74	6.56	6.68	7.068E+03	1.730E+03	4.09
4	7.26	7.19	7.14	7.03	6.91	7.41	7.16	6.826E+03	1.537E+03	4.44
5	8.54	8.67	8.57	7.91	8.13	8.81	8.44	6.922E+03	1.238E+03	5.59

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	6.94	5.94	1.61	2.22	2.26	4.83	2.24			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.70	6.23	5.90	5.67	5.73	6.11	5.89	6.916E+03	1.944E+03	3.56
2	6.01	6.05	6.15	5.98	5.99	6.14	6.06	6.931E+03	1.929E+03	3.59
3	6.59	6.55	6.57	6.78	6.63	6.57	6.61	7.058E+03	1.755E+03	4.02
4	7.16	7.14	7.16	7.02	7.02	7.40	7.15	6.813E+03	1.538E+03	4.43
5	8.59	8.78	8.54	7.95	8.17	8.78	8.47	6.911E+03	1.230E+03	5.62

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	6.94	5.92	1.49	2.16	2.29	4.78	2.22			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.68	5.29	5.02	4.71	4.91	5.25	4.98	4.028E+03	1.503E+03	2.68
2	5.11	5.15	5.39	5.21	5.27	5.35	5.25	4.049E+03	1.436E+03	2.82
3	5.71	5.71	5.57	5.80	5.70	5.55	5.67	4.125E+03	1.323E+03	3.12
4	6.15	6.04	6.13	5.94	5.94	6.21	6.07	3.981E+03	1.177E+03	3.38
5	6.71	6.86	6.73	6.31	6.51	6.89	6.67	4.040E+03	1.048E+03	3.85

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	6.95	5.95	1.51	2.16	2.34	4.80	2.25			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.87	5.21	5.01	4.82	4.96	5.20	5.01	4.028E+03	1.499E+03	2.69
2	5.16	5.19	5.38	5.29	5.25	5.37	5.27	4.044E+03	1.435E+03	2.82
3	5.75	5.74	5.58	5.91	5.73	5.57	5.72	4.127E+03	1.318E+03	3.13
4	6.20	6.16	6.21	5.96	5.99	6.38	6.15	3.982E+03	1.159E+03	3.44
5	6.83	6.98	6.87	6.49	6.63	7.02	6.80	4.037E+03	1.019E+03	3.96

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.57	6.36	1.44	2.20	2.42	5.12	2.31			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
1	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.21	4.51	4.41	4.22	4.41	4.48	4.37	2.060E+03	1.031E+03	2.00
2	4.59	4.60	4.90	4.86	4.75	4.82	4.75	2.077E+03	9.246E+02	2.25
3	5.34	5.32	5.01	5.45	5.36	5.00	5.25	2.120E+03	8.118E+02	2.61
4	5.69	5.59	5.75	5.38	5.38	5.73	5.59	2.044E+03	7.230E+02	2.83
5	5.79	5.90	5.85	5.45	5.56	5.93	5.74	2.075E+03	7.277E+02	2.85

Date Set Number = 14

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
7.61	6.37	1.43	2.20	2.41	5.13	2.30

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5					
1	4.21	4.47	4.40	4.21	4.40	4.43	4.35	2.061E+03	1.039E+03	1.98
2	4.52	4.53	4.86	4.83	4.71	4.78	4.71	2.076E+03	5.402E+02	2.21
3	5.30	5.29	4.85	5.41	5.32	4.78	5.16	2.124E+03	8.393E+02	2.53
4	5.65	5.56	5.68	5.11	5.15	5.71	5.48	2.047E+03	7.522E+02	2.72
5	5.77	5.88	5.80	5.33	5.44	5.90	5.69	2.074E+03	7.410E+02	2.80

Date Set Number = 15

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.21	6.56	1.28	2.02	2.29	5.35	2.16

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5					
1	3.77	3.92	4.01	3.75	4.01	3.90	3.89	1.252E+03	7.471E+02	1.68
2	4.26	4.28	4.70	4.65	4.44	4.53	4.48	1.266E+03	5.941E+02	2.13
3	4.84	5.03	4.65	4.90	5.06	4.63	4.85	1.295E+03	5.454E+02	2.37
4	5.10	4.82	5.13	4.83	4.87	4.95	4.95	1.248E+03	5.316E+02	2.35
5	4.93	5.02	5.06	4.64	4.90	5.11	4.98	1.266E+03	5.643E+02	2.24

Date Set Number = 16

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.27	6.56	1.08	2.02	2.25	5.37	2.14

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5					
1	3.73	3.94	4.04	3.73	4.03	3.90	3.90	1.252E+03	7.370E+02	1.70
2	4.23	4.25	4.68	4.65	4.42	4.49	4.45	1.263E+03	5.940E+02	2.13
3	4.83	5.04	4.65	4.91	5.08	4.67	4.85	1.295E+03	5.382E+02	2.41
4	5.12	4.83	5.14	4.83	4.87	4.97	4.95	1.249E+03	5.252E+02	2.30
5	4.93	5.01	5.09	4.63	4.91	5.13	4.98	1.265E+03	5.569E+02	2.27

NOTE 16 x-y pairs were stored in plot data file PDSMD48

Disk number = 11

File name DEMD48

This data set taken on 02 18 11 23 05

Date Set Number = 1

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.81	17.57	17.01	2.10	2.25	10.27	2.18

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5					
1	21.00	25.48	22.02	20.95	21.47	25.00	22.65	9.509E+04	4.772E+03	19.93

Date Set Number = 2

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
19.59	14.02	17.02	2.09	2.24	10.27	2.17

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5					
1	20.95	25.59	22.14	20.64	21.52	25.17	22.70	9.520E+04	4.764E+03	19.98

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	15.17	14.23	1.26	2.09	2.20	10.22	2.14	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.83	21.97	19.21	18.76	18.75	21.44	19.83	7.672E+04	4.453E+03	17.23

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	15.15	14.25	1.26	2.09	2.20	10.22	2.15	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.78	21.85	19.14	18.72	18.79	21.37	19.77	7.660E+04	4.460E+03	17.17

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.99	14.15	1.47	2.22	2.28	10.20	2.25	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	15.85	17.49	15.99	15.92	15.57	16.80	16.27	5.461E+04	3.991E+03	13.68

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	15.00	14.14	1.47	2.23	2.28	10.20	2.25	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	15.82	17.51	15.98	15.96	15.62	16.79	16.28	5.451E+04	3.982E+03	13.69

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	15.09	14.06	1.47	2.14	2.23	10.21	2.18	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	13.86	12.66	12.56	13.09	11.83	11.89	12.52	3.266E+04	3.232E+03	10.10

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	15.13	14.05	1.47	2.14	2.23	10.22	2.18	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	13.17	12.68	12.55	13.19	11.87	11.92	12.57	3.263E+04	3.213E+03	10.16

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	15.35	14.31	1.42	2.14	2.20	10.36	2.17	

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.95	10.37	10.51	10.83	10.14	9.83	10.44	1.687E+04	2.077E+03	8.12

Data Set Number = 10

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.37	14.36	1.42	2.15	2.20	10.39	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.93	10.40	10.50	10.82	10.13	9.85	10.44	1.693E+04	2.086E+03	8.12

Data Set Number = 11

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.44	14.65	1.41	2.18	2.23	10.50	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.93	9.31	9.64	9.87	9.43	8.94	9.52	1.110E+04	1.542E+03	7.20

Data Set Number = 12

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.45	14.68	1.41	2.18	2.24	10.51	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.99	9.37	9.68	9.93	9.42	8.97	9.56	1.106E+04	1.529E+03	7.23

Data Set Number = 13

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.45	14.79	1.35	2.16	2.23	10.53	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.28	8.54	9.08	9.25	8.94	8.31	8.90	7.674E+03	1.162E+03	6.60

Data Set Number = 14

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.45	14.80	1.35	2.16	2.23	10.53	2.19

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.25	8.55	9.07	9.20	8.88	8.30	8.88	7.675E+03	1.165E+03	6.59

Data Set Number = 15

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.4	14.81	1.22	2.12	2.17	10.48	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.39	7.65	8.27	8.36	8.17	7.51	8.05	4.588E+03	7.865E+02	5.83

Data Set Number = 16

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.4	14.80	1.27	2.13	2.15	10.48	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.48	7.65	8.30	8.45	8.21	7.52	8.11	4.588E+03	7.810E+02	5.87

Data Set Number = 17

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.36	14.79	1.19	2.24	2.27	10.45	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.59	6.88	7.51	7.63	7.44	6.83	7.31	2.334E+03	4.683E+02	4.98

Data Set Number = 18

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.35	14.79	1.18	2.23	2.28	10.44	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.59	6.87	7.51	7.63	7.45	6.82	7.31	2.327E+03	4.666E+02	4.99

Data Set Number = 19

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.27	14.73	.90	2.18	2.22	10.30	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.27	5.95	6.43	6.31	6.40	5.96	6.22	1.150E+03	2.909E+02	3.95

Data Set Number = 20

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
15.26	14.73	.88	2.15	2.21	10.29	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.23	5.93	6.38	6.26	6.35	5.91	6.18	1.161E+03	2.954E+02	3.93

NOTE: 20 X-Y pairs were stored in plot data file PDSMD49

Dist number = 11

File name DSMDS0

This data set taken on 22-18-12/27-29

Data Set Number = 1

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
14.78	13.15	1.30	2.11	2.20	9.74	2.16

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	19.99	23.00	19.67	19.66	20.08	20.47	20.81	9.134E+04	5.040E+03	18.12
2	18.67	18.69	19.20	18.15	18.95	18.89	18.78	9.116E+04	5.709E+03	15.97

Data Set Number = 2

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
14.75	13.11	1.28	2.10	2.20	9.72	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	19.97	23.00	19.67	19.66	19.90	20.46	20.78	9.164E+04	5.064E+03	18.10
2	18.74	18.72	19.24	18.22	18.97	18.89	18.81	9.148E+04	5.717E+03	16.00

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.02	12.98	1.40	2.18	2.24	9.47	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	18.00	20.31	17.94	17.86	18.01	19.69	18.63	7.376E+04	4.614E+03	15.99
2	16.75	16.65	17.11	16.07	16.89	17.13	16.77	7.362E+04	5.261E+03	13.99

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.95	13.00	1.39	2.18	2.23	9.45	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	17.95	20.33	17.92	17.87	18.13	19.71	18.65	7.387E+04	4.615E+03	16.01
2	16.74	16.65	17.10	16.04	16.89	17.11	16.76	7.373E+04	5.274E+03	13.98

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.48	12.79	1.40	2.13	2.16	9.22	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	15.45	16.95	15.66	15.48	15.46	16.32	15.89	5.600E+04	4.182E+03	13.39
2	15.01	14.72	15.14	14.13	14.72	15.11	14.81	5.590E+04	4.588E+03	12.18

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.44	12.78	1.40	2.13	2.17	9.21	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	15.42	16.96	15.65	15.47	15.44	16.30	15.87	5.583E+04	4.173E+03	13.38
2	14.97	14.72	15.10	14.10	14.70	15.12	14.79	5.574E+04	4.583E+03	12.16

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.37	12.41	1.53	2.18	2.21	9.10	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.76	12.30	12.03	12.06	11.01	11.74	11.82	3.358E+04	3.577E+03	9.39
2	13.17	12.98	13.10	12.28	12.62	13.05	12.87	3.351E+04	3.251E+03	10.31

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.37	12.35	1.54	2.18	2.21	9.08	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.77	12.26	12.00	12.08	10.98	11.73	11.80	3.354E+04	3.579E+03	9.37
2	13.19	13.00	13.11	12.28	12.68	13.08	12.89	3.349E+04	3.241E+03	10.33

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.43	12.14	1.49	2.16	2.20	9.02	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	9.67	9.74	9.87	9.78	9.12	9.30	9.58	1.748E+04	2.410E+03	7.25
2	11.52	11.53	11.34	10.93	10.97	11.21	11.25	1.747E+04	1.986E+03	8.80

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.44	12.13	1.49	2.16	2.20	9.02	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	9.68	9.72	9.86	9.77	9.08	9.29	9.57	1.754E+04	2.423E+03	7.24
2	11.56	11.53	11.33	10.94	10.99	11.30	11.28	1.752E+04	1.986E+03	8.82

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.51	12.13	1.44	2.17	2.19	9.03	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	8.70	8.75	8.91	8.73	8.48	8.45	8.67	1.195E+04	1.874E+03	6.37
2	10.76	10.75	10.52	10.22	10.16	10.37	10.46	1.195E+04	1.487E+03	8.04

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.53	12.12	1.44	2.17	2.19	9.03	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	8.70	8.75	8.90	8.74	8.48	8.47	8.68	1.196E+04	1.875E+03	6.38
2	10.71	10.71	10.46	10.22	10.15	10.40	10.44	1.196E+04	1.492E+03	8.01

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.92	12.56	1.33	2.13	2.12	9.27	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	7.64	7.87	7.87	7.61	7.67	7.69	7.72	8.360E+03	1.521E+03	5.49
2	9.94	9.92	9.67	9.51	9.42	9.61	9.68	8.367E+03	1.143E+03	7.32

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.94	12.65	1.34	2.13	2.12	9.31	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	7.62	7.85	7.88	7.61	7.68	7.70	7.72	8.405E+03	1.529E+03	5.50
2	9.93	9.92	9.73	9.52	9.45	9.68	9.70	8.410E+03	1.144E+03	7.35

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.12	13.23	1.41	2.23	2.20	9.59	2.22

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.51	6.90	6.78	6.48	6.74	6.82	6.70	5.124E+03	1.163E+03	4.41
2	9.08	9.09	9.07	8.91	8.98	9.11	9.04	5.138E+03	7.771E+02	6.61

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.13	13.26	1.42	2.24	2.21	9.60	2.22

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.54	6.91	6.81	6.49	6.76	6.83	6.72	5.094E+03	1.155E+03	4.41
2	9.14	9.12	9.07	8.91	8.98	9.11	9.05	5.107E+03	7.720E+02	6.62

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.14	13.41	1.32	2.23	2.20	9.62	2.21

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.32	5.71	5.54	5.27	5.57	5.68	5.51	2.904E+03	8.993E+02	3.23
2	8.13	8.12	8.27	8.20	8.24	8.31	8.21	2.919E+03	5.035E+02	5.80

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.14	13.41	1.33	2.23	2.19	9.62	2.21

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.28	5.69	5.52	5.25	5.55	5.67	5.49	2.900E+03	9.023E+02	3.21
2	8.14	8.13	8.28	8.21	8.21	8.32	8.22	2.912E+03	5.015E+02	5.81

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.11	13.44	1.12	2.14	2.13	9.55	2.13

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.28	4.67	4.49	4.27	4.53	4.69	4.49	1.354E+03	5.905E+02	2.26
2	6.72	6.71	7.04	7.07	6.88	6.91	6.89	1.367E+03	2.994E+02	4.57

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.10	13.44	1.12	2.13	2.11	9.55	2.12

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
		1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.28	4.68	4.49	4.27	4.54	4.70	4.50	1.355E+03	5.862E+02	2.31
2	6.72	6.70	7.04	7.05	6.85	6.90	6.88	1.367E+03	2.994E+02	4.57

NOTE: 20 X-Y pairs were stored in plot data file PDSMCE0

Disk number = 11  
 File name: DSM051  
 This data set taken on = 02:18:13:46:13

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.33	9.75	1.30	2.10	2.16	7.79	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	19.58	22.49	19.29	19.22	19.48	21.89	20.32	8.914E+04	5.043E+03	17.68
2	17.87	18.04	18.14	17.22	18.23	17.91	17.90	8.901E+04	5.885E+03	15.13
3	17.16	16.87	17.42	17.13	17.26	16.96	17.14	9.016E+04	6.338E+03	14.23

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.31	9.73	1.29	2.08	2.15	7.78	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	19.53	22.49	19.25	19.18	19.27	21.90	20.27	8.886E+04	5.038E+03	17.64
2	17.84	17.98	18.15	17.20	18.21	17.97	17.89	8.872E+04	5.863E+03	15.13
3	17.16	16.86	17.42	17.11	17.23	16.95	17.12	8.988E+04	6.318E+03	14.22

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.06	9.53	1.44	2.21	2.27	7.67	2.24

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.35	20.94	18.24	18.17	18.21	20.31	19.04	7.849E+04	4.805E+03	16.33
2	16.95	16.94	17.14	16.20	17.06	17.04	16.89	7.832E+04	5.571E+03	14.06
3	15.84	15.59	15.99	15.84	15.95	15.65	15.81	7.933E+04	6.176E+03	12.85

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.01	9.49	1.43	2.21	2.26	7.64	2.23

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.41	20.97	18.29	18.17	18.24	20.33	19.07	7.838E+04	4.786E+03	16.37
2	16.95	16.95	17.15	16.26	17.09	17.03	16.90	7.825E+04	5.556E+03	14.08
3	15.89	15.61	16.02	15.87	15.96	15.66	15.83	7.929E+04	6.157E+03	12.88

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.58	9.54	1.51	2.23	2.27	7.55	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	15.63	17.31	15.71	15.70	15.50	16.66	16.09	5.813E+04	4.310E+03	12.49
2	14.76	14.55	15.86	14.10	14.66	15.85	14.70	5.801E+04	4.848E+03	11.97
3	13.50	13.47	13.66	13.56	13.75	13.42	13.56	5.862E+04	5.500E+03	10.70

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	11.58	9.54	1.51	2.25	2.27	7.54	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	15.60	17.32	15.71	15.68	15.60	16.65	16.09	5.788E+04	4.294E+03	13.48
2	14.75	14.54	15.05	14.09	14.61	15.05	14.68	5.777E+04	4.839E+03	11.94
3	13.55	13.44	13.66	13.57	13.74	13.42	13.56	5.853E+04	5.478E+03	10.68

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.85	9.04	1.59	2.23	2.26	7.16	2.24

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.69	12.51	12.07	12.04	11.03	11.96	11.88	3.537E+04	3.762E+03	9.40
2	11.91	11.61	12.05	11.08	11.23	12.05	11.65	3.531E+04	3.904E+03	9.04
3	11.37	11.33	11.84	11.57	11.50	11.63	11.54	3.580E+04	4.069E+03	8.80

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.80	8.96	1.60	2.24	2.27	7.13	2.25

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.74	12.50	12.05	12.06	10.95	11.96	11.88	3.537E+04	3.768E+03	9.39
2	11.90	11.61	12.06	11.06	11.24	12.06	11.65	3.529E+04	3.907E+03	9.03
3	11.36	11.35	11.82	11.58	11.51	11.60	11.54	3.579E+04	4.075E+03	8.78

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.73	9.16	1.52	2.17	2.19	7.14	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.50	9.64	9.65	9.62	8.91	9.20	9.43	1.877E+04	2.646E+03	7.10
2	10.29	10.15	10.45	9.85	9.81	10.38	10.15	1.876E+04	2.439E+03	7.69
3	10.06	10.06	10.48	10.37	10.12	10.20	10.22	1.904E+04	2.497E+03	7.63

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.72	9.17	1.50	2.17	2.19	7.14	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.50	9.63	9.65	9.63	8.95	9.21	9.43	1.880E+04	2.649E+03	7.10
2	10.27	10.15	10.45	9.87	9.81	10.37	10.15	1.876E+04	2.443E+03	7.69
3	10.02	10.05	10.48	10.37	10.15	10.20	10.22	1.907E+04	2.503E+03	7.62

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	10.80	9.34	1.51	2.18	2.20	7.22	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.66	8.60	8.78	8.71	8.27	8.33	8.56	1.285E+04	2.057E+03	6.25
2	9.32	9.20	9.46	9.15	8.95	9.35	9.26	1.284E+04	1.865E+03	6.82
3	9.64	9.52	9.81	9.97	9.55	9.58	9.64	1.305E+04	1.847E+03	7.07

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.84	9.35	1.53	2.20	2.22	7.24	2.21

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	8.64	8.63	8.81	8.70	8.28	8.36	8.57	1.281E+04	2.055E+03	6.24
2	9.31	9.27	9.49	9.22	8.97	9.35	9.27	1.281E+04	1.892E+03	6.80
3	9.54	9.53	9.83	9.80	9.57	9.60	9.64	1.302E+04	1.847E+03	7.05

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.31	9.44	1.46	2.16	2.18	7.40	2.18

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	7.72	7.78	7.97	7.75	7.70	7.63	7.76	9.071E+03	1.659E+03	5.47
2	8.19	8.20	8.33	8.22	7.99	8.17	8.18	9.077E+03	1.574E+03	5.77
3	9.02	9.04	9.21	9.27	9.07	9.04	9.11	9.232E+03	1.407E+03	6.56

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.38	9.44	1.46	2.16	2.18	7.43	2.18

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	7.72	7.80	7.96	7.74	7.69	7.63	7.76	9.079E+03	1.272E+03	5.47
2	8.19	8.18	8.33	8.23	7.98	8.18	8.18	9.085E+03	1.576E+03	5.77
3	9.04	9.05	9.22	9.29	9.06	9.00	9.11	9.238E+03	1.407E+03	6.57

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.97	10.04	1.47	2.16	2.28	7.83	2.26

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	6.73	6.88	6.96	6.71	6.87	6.81	6.83	5.694E+03	1.272E+03	4.46
2	7.07	7.09	7.19	7.20	6.99	7.10	7.11	5.707E+03	1.234E+03	4.63
3	8.49	8.56	8.56	8.70	8.56	8.47	8.56	5.812E+03	9.775E+02	5.95

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.00	10.15	1.46	2.27	2.26	7.87	2.25

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	6.67	6.84	6.91	6.64	6.81	6.77	6.77	5.688E+03	1.282E+03	4.44
2	6.89	7.03	7.13	7.13	6.87	7.03	7.05	5.704E+03	1.244E+03	4.59
3	8.46	8.51	8.56	8.68	8.51	8.46	8.53	5.809E+03	9.777E+02	5.94

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.16	10.97	1.41	2.27	2.21	8.18	2.22

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.38	5.79	5.70	5.38	5.70	5.76	5.62	3.261E+03	9.800E+02	3.32
2	5.83	5.85	6.16	6.15	5.83	5.14	6.05	3.279E+03	9.046E+02	3.62
3	7.85	7.88	7.96	7.99	7.88	7.93	7.92	3.349E+03	6.238E+02	5.37

Data Set Number = 18

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
12.17	11.03	1.43	2.24	2.22	8.21	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	5.40	5.77	5.68	5.37	5.68	5.73	5.61	3.274E+03	9.905E+02	3.31
2	5.81	5.84	6.12	6.11	6.10	6.10	6.01	3.288E+03	9.184E+02	3.58
3	7.83	7.87	7.94	7.98	7.89	7.92	7.91	3.353E+03	6.274E+02	5.34

Data Set Number = 19

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
12.24	11.31	1.31	2.18	2.16	8.28	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	4.23	4.64	4.43	4.22	4.45	4.63	4.43	1.561E+03	7.104E+02	2.20
2	4.87	4.88	5.28	5.17	5.40	5.42	5.17	1.575E+03	5.615E+02	2.80
3	6.95	6.95	6.80	7.03	6.96	6.79	6.91	1.609E+03	3.641E+02	4.42

Data Set Number = 20

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
12.24	11.33	1.34	2.20	2.18	8.30	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	4.28	4.68	4.47	4.27	4.50	4.68	4.48	1.564E+03	7.024E+02	2.23
2	4.94	4.94	5.32	5.21	5.44	5.49	5.22	1.577E+03	5.555E+02	2.84
3	6.98	6.98	6.82	7.05	6.99	6.82	6.94	1.613E+03	3.641E+02	4.43

NOTE 20 X-Y pairs were stored in plot data file PDSMDS1

Dist number = 11

File name DSMDS2

This data set taken on 02 23 11:15 22

Data Set Number = 1

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.40	12.33	1.49	2.23	2.35	9.40	2.29

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	19.67	22.50	19.45	19.38	19.28	21.94	20.37	9.165E+04	5.223E+03	17.55
2	17.94	18.87	18.25	17.32	18.19	17.91	17.95	9.149E+04	6.100E+03	15.00
3	16.94	16.63	17.27	17.14	16.73	16.32	16.84	9.264E+04	6.734E+03	13.76
4	16.91	20.01	20.05	17.03	17.11	21.68	19.12	9.967E+04	5.628E+03	15.93

Data Set Number = 2

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.36	12.33	1.52	2.26	2.37	9.40	2.31

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	19.67	22.68	19.44	18.42	19.22	22.04	20.41	9.153E+04	5.210E+03	17.57
2	18.02	18.12	18.33	17.39	18.28	17.97	18.02	9.136E+04	6.071E+03	15.05
3	17.03	16.72	17.35	17.21	16.75	16.36	16.91	9.249E+04	6.699E+03	13.81
4	16.96	20.11	20.11	17.11	17.16	21.74	19.20	9.950E+04	5.601E+03	15.98

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.84	12.76	1.43	2.16	2.26	9.35	2.21

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> .K)	H (W/m <sup>2</sup> .K)	Thetab (K)
1	18.05	20.53	17.93	17.07	17.77	19.93	18.68	7.818E+04	4.883E+03	16.01
2	16.64	16.66	16.94	16.03	16.76	16.72	16.63	7.804E+04	5.644E+03	13.83
3	15.55	15.23	15.68	15.73	15.38	15.11	15.45	7.899E+04	5.311E+03	12.52
4	17.15	17.71	17.99	15.27	15.47	19.51	17.18	7.644E+04	5.408E+03	14.13

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.78	12.78	1.45	2.18	2.27	9.33	2.22

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> .K)	H (W/m <sup>2</sup> .K)	Thetab (K)
1	18.06	20.50	17.86	17.06	17.93	19.90	18.69	7.778E+04	4.861E+03	16.00
2	16.63	16.62	16.92	15.98	16.74	16.69	16.60	7.767E+04	5.635E+03	13.78
3	15.52	15.20	15.66	15.71	15.36	15.10	15.42	7.866E+04	5.304E+03	12.48
4	17.09	17.66	17.91	15.22	15.41	19.46	17.13	7.610E+04	5.411E+03	14.07

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.52	12.24	1.49	2.16	2.22	9.08	2.19

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> .K)	H (W/m <sup>2</sup> .K)	Thetab (K)
1	13.98	15.33	14.10	14.13	13.54	14.72	14.30	4.943E+04	4.190E+03	11.80
2	13.52	13.31	13.83	12.86	13.20	13.76	13.43	4.934E+04	4.570E+03	10.80
3	12.16	12.10	12.36	12.35	12.29	12.36	12.27	4.998E+04	5.258E+03	9.51
4	14.18	14.19	14.32	12.55	12.99	15.90	14.02	4.831E+04	4.338E+03	11.14

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.50	12.24	1.49	2.16	2.23	9.08	2.20

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> .K)	H (W/m <sup>2</sup> .K)	Thetab (K)
1	13.96	15.32	14.09	14.12	13.52	14.71	14.30	4.905E+04	4.159E+03	11.79
2	13.50	13.29	13.83	12.87	13.26	13.74	13.41	4.897E+04	4.544E+03	10.78
3	12.16	12.11	12.39	12.33	12.28	12.36	12.27	4.959E+04	5.219E+03	9.50
4	14.18	14.19	14.30	12.54	12.99	15.87	14.01	4.796E+04	4.312E+03	11.12

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.39	12.48	1.57	2.18	2.23	9.15	2.20

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m <sup>2</sup> )	Qdp (W/m <sup>2</sup> .K)	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.30	10.97	10.57	10.59	9.39	10.52	10.29	2.888E+04	3.617E+03	7.98
2	10.47	10.24	10.63	9.79	9.91	10.71	10.29	2.881E+04	3.715E+03	7.76
3	10.08	9.94	10.54	10.40	10.27	10.61	10.31	2.919E+04	3.821E+03	7.64
4	12.36	12.18	12.29	11.01	11.42	13.45	12.12	2.824E+04	3.827E+03	9.33

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.42	12.48	1.57	2.18	2.23	9.16	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.32	10.98	10.58	10.63	9.33	10.54	10.40	2.881E+04	3.607E+03	7.99
2	10.48	10.21	10.65	9.81	9.89	10.70	10.29	2.877E+04	3.712E+03	7.75
3	10.07	9.93	10.53	10.42	10.27	10.60	10.30	2.917E+04	3.820E+03	7.63
4	12.37	12.20	12.29	11.02	11.42	13.43	12.12	2.821E+04	3.024E+03	9.33

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.30	12.66	1.56	2.22	2.22	9.17	2.22

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.38	8.69	8.56	8.43	7.98	8.41	8.41	1.414E+04	2.334E+03	6.06
2	8.67	8.70	8.88	8.59	8.42	8.88	8.69	1.413E+04	2.275E+03	6.21
3	8.79	8.81	8.97	9.20	8.94	8.98	8.95	1.434E+04	2.263E+03	6.34
4	10.70	10.68	10.60	9.84	10.05	11.43	10.55	1.387E+04	1.776E+03	7.81

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.28	12.66	1.57	2.23	2.23	9.17	2.23

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.38	8.67	8.56	8.45	7.98	8.39	8.41	1.421E+04	2.349E+03	6.05
2	8.67	8.67	8.86	8.60	8.40	8.84	8.68	1.420E+04	2.295E+03	6.19
3	8.79	8.80	8.98	9.20	8.97	8.99	8.96	1.441E+04	2.274E+03	6.34
4	10.76	10.68	10.65	9.66	10.08	11.44	10.58	1.393E+04	1.778E+03	7.83

Data Set Number = 11

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.48	12.61	1.46	2.14	2.17	9.18	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.42	7.73	7.59	7.44	7.23	7.56	7.49	9.874E+03	1.888E+03	5.23
2	7.70	7.71	7.95	7.76	7.60	7.90	7.77	9.876E+03	1.836E+03	5.38
3	7.75	7.93	7.98	8.11	8.09	7.95	7.97	1.005E+04	1.845E+03	5.45
4	9.98	10.17	9.95	9.27	9.44	10.67	9.91	9.702E+03	1.335E+03	7.26

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.51	12.60	1.46	2.15	2.16	9.19	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.40	7.74	7.59	7.44	7.25	7.58	7.50	9.871E+03	1.884E+03	5.24
2	7.73	7.75	7.97	7.82	7.61	7.90	7.80	9.879E+03	1.827E+03	5.41
3	7.78	7.82	8.01	8.14	8.09	7.95	7.99	1.004E+04	1.837E+03	5.46
4	9.96	10.09	9.97	9.29	9.50	10.68	9.91	9.703E+03	1.336E+03	7.26

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.19	12.48	1.46	2.18	2.21	9.38	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.52	6.92	6.74	6.54	6.55	6.87	6.69	6.755E+03	1.534E+03	4.40
2	6.74	6.77	6.92	6.84	6.69	6.85	6.80	6.765E+03	1.542E+03	4.39
3	6.75	6.95	7.00	7.02	7.07	6.94	6.96	6.885E+03	1.561E+03	4.41
4	9.47	9.51	9.44	8.80	8.93	9.89	9.34	6.647E+03	9.964E+02	6.67

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.25	12.50	1.47	2.19	2.22	9.41	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.53	6.94	6.72	6.54	6.56	6.87	6.69	6.707E+03	1.525E+03	4.40
2	6.71	6.73	6.92	6.84	6.69	6.84	6.79	6.716E+03	1.538E+03	4.37
3	6.73	6.96	6.99	7.00	7.05	6.92	6.94	6.835E+03	1.557E+03	4.39
4	9.49	9.52	9.45	8.81	8.96	9.90	9.35	6.600E+03	9.890E+02	6.67

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.44	12.67	1.40	2.15	2.20	9.50	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.45	5.74	5.99	5.44	5.54	5.70	5.58	4.028E+03	1.213E+03	3.32
2	5.66	5.69	5.71	5.69	5.55	5.65	5.66	4.040E+03	1.233E+03	3.28
3	5.74	5.92	5.99	5.92	5.97	5.93	5.91	4.120E+03	1.212E+03	3.40
4	8.68	8.67	8.68	8.08	8.16	8.91	8.53	3.977E+03	6.755E+02	5.89

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.45	12.68	1.41	2.15	2.21	9.51	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.50	5.75	5.60	5.48	5.55	5.72	5.60	4.025E+03	1.205E+03	3.34
2	5.67	5.71	5.73	5.72	5.58	5.65	5.68	4.041E+03	1.229E+03	3.29
3	5.74	5.95	6.00	5.91	5.99	5.92	5.92	4.118E+03	1.210E+03	3.40
4	8.70	8.70	8.71	8.09	8.16	8.95	8.55	3.970E+03	6.723E+02	5.91

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.56	13.68	1.36	2.21	2.26	9.89	2.23

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.42	4.65	4.58	4.48	4.61	4.65	4.58	1.985E+03	8.717E+02	2.28
2	4.86	4.88	4.90	4.92	4.83	4.84	4.87	2.000E+03	8.189E+02	2.44
3	5.22	5.31	5.36	5.32	5.33	5.36	5.32	2.042E+03	7.386E+02	2.76
4	7.40	7.32	7.41	6.91	6.95	7.45	7.24	1.969E+03	4.324E+02	4.55

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.58	13.71	1.40	2.22	2.26	9.90	2.24

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.50	4.66	4.59	4.50	4.62	4.66	4.59	1.983E+03	8.691E+02	2.28
2	4.89	4.90	4.91	4.93	4.82	4.86	4.88	1.995E+03	8.151E+02	2.45
3	5.24	5.32	5.40	5.35	5.34	5.37	5.34	2.040E+03	7.352E+02	2.77
4	7.40	7.32	7.43	6.92	6.96	7.46	7.25	1.966E+03	4.315E+02	4.56

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.57	13.91	1.37	2.24	2.23	9.95	2.23

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.92	4.07	4.01	3.94	4.04	4.07	4.01	1.204E+03	7.041E+02	1.71
2	5.16	4.40	4.48	4.46	4.45	4.43	4.44	1.216E+03	6.042E+02	2.01
3	5.16	5.23	5.06	5.24	5.26	5.06	5.17	1.244E+03	4.760E+02	2.61
4	6.45	6.29	6.48	6.09	6.13	6.40	6.31	1.190E+03	3.308E+02	3.62

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.57	13.92	1.39	2.26	2.26	9.96	2.26

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.99	4.13	4.08	3.99	4.10	4.12	4.07	1.200E+03	6.876E+02	1.74
2	4.45	4.47	4.55	4.55	4.52	4.51	4.51	1.212E+03	5.896E+02	2.06
3	5.22	5.31	5.14	5.30	5.32	5.12	5.24	1.240E+03	4.670E+02	2.66
4	6.50	6.34	6.52	6.14	6.17	6.46	6.35	1.195E+03	3.279E+02	3.64

NOTE 20 X-Y pairs were stored in plot data file PDSMD52

Dist number = 11

File name DSMDS3

This data set taken on 02/23/12 47:55

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.67	10.49	1.39	2.16	2.24	7.85	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.46	22.50	19.27	19.29	19.35	21.92	20.30	9.140E+04	5.201E+03	17.57
2	17.71	17.93	18.11	17.19	18.15	17.79	17.81	9.125E+04	6.101E+03	14.96
3	16.71	16.47	17.04	16.80	16.61	16.15	16.60	9.236E+04	6.774E+03	13.64
4	18.67	20.41	19.80	17.01	17.02	21.76	19.11	8.938E+04	5.582E+03	16.01
5	24.32	23.20	21.81	18.82	21.94	23.23	22.22	9.063E+04	4.775E+03	18.98

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.55	10.40	1.41	2.16	2.23	7.79	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.46	22.46	19.39	19.25	19.22	21.89	20.28	9.130E+04	5.201E+03	17.56
2	17.66	17.51	18.20	17.15	18.02	17.76	17.78	9.115E+04	6.106E+03	14.93
3	16.65	16.44	16.98	16.74	16.55	16.13	16.58	9.232E+04	6.792E+03	13.59
4	18.64	20.35	19.76	16.94	16.94	21.70	19.05	8.929E+04	5.592E+03	15.95
5	24.20	23.13	21.73	18.75	21.86	23.17	22.14	9.054E+04	4.790E+03	18.90

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.75	10.78	1.42	2.15	2.22	7.99	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.40	19.68	17.14	17.28	16.86	19.07	17.91	7.403E+04	4.845E+03	15.28
2	16.10	16.04	16.40	15.48	16.15	16.21	16.06	7.388E+04	5.551E+03	13.31
3	14.86	14.64	15.05	15.00	14.84	14.59	14.83	7.483E+04	6.264E+03	11.95
4	16.95	17.39	17.42	14.96	15.18	19.06	16.81	7.237E+04	5.241E+03	13.81
5	20.60	19.39	18.35	15.97	18.73	19.64	18.78	7.334E+04	4.689E+03	15.64

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.80	10.80	1.42	2.15	2.23	8.01	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.39	19.70	17.08	17.26	16.93	19.09	17.91	7.354E+04	4.812E+03	15.28
2	16.09	16.00	16.36	15.44	16.17	16.22	16.05	7.347E+04	5.528E+03	13.29
3	14.84	14.65	15.08	14.96	14.83	14.59	14.83	7.445E+04	6.237E+03	11.94
4	16.86	17.36	17.41	14.96	15.20	19.04	16.81	7.200E+04	5.216E+03	13.80
5	20.52	19.31	18.33	15.92	16.70	19.60	18.73	7.302E+04	4.684E+03	15.59

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.83	9.90	1.53	2.22	2.28	7.75	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.48	15.91	14.51	14.59	14.27	15.29	14.81	5.195E+04	4.247E+03	12.23
2	13.96	13.76	14.19	13.35	13.72	14.08	13.85	5.185E+04	4.650E+03	11.15
3	12.57	12.44	12.74	12.67	12.60	12.74	12.63	5.254E+04	5.363E+03	9.80
4	14.43	14.17	14.44	12.62	13.00	15.78	14.08	5.083E+04	4.571E+03	11.12
5	16.88	15.78	14.98	12.60	15.78	15.30	15.54	5.157E+04	4.143E+03	12.45

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.82	9.92	1.54	2.22	2.28	7.73	2.26

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.47	15.87	14.52	14.62	14.29	15.29	14.81	5.171E+04	4.228E+03	12.23
2	13.98	13.78	14.24	13.42	13.79	14.11	13.89	5.163E+04	4.619E+03	11.18
3	12.61	12.45	12.77	12.71	12.68	12.74	12.66	5.230E+04	5.327E+03	9.82
4	14.45	14.21	14.47	12.66	13.02	15.80	14.10	5.061E+04	4.543E+03	11.14
5	16.86	15.75	14.92	13.45	15.76	15.27	15.51	5.137E+04	4.138E+03	12.42

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.26	9.77	1.61	2.22	2.29	7.55	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.66	11.40	10.96	10.94	9.74	10.96	10.78	3.110E+04	3.741E+03	8.31
2	10.72	10.56	10.88	10.82	10.20	10.93	10.55	3.104E+04	3.903E+03	7.95
3	9.91	9.64	10.00	10.05	10.20	10.28	9.99	3.147E+04	4.331E+03	7.26
4	12.09	11.76	11.99	10.68	11.10	12.95	11.76	3.045E+04	3.418E+03	8.91
5	13.56	12.93	12.43	11.52	12.10	12.57	12.66	3.090E+04	3.130E+03	9.87

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	11.28	9.75	1.62	2.22	2.38	7.55	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.67	11.42	10.94	10.93	9.68	10.95	10.76	3.095E+04	3.735E+03	8.29
2	10.73	10.54	10.88	10.02	10.20	10.93	10.55	3.091E+04	3.893E+03	7.94
3	9.92	9.64	9.99	10.07	10.02	10.28	9.99	3.133E+04	4.322E+03	7.25
4	12.02	11.75	11.92	10.65	11.06	12.93	11.72	3.029E+04	3.420E+03	8.86
5	13.60	12.98	12.45	11.56	13.16	13.60	12.89	3.075E+04	3.106E+03	9.90

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	11.09	9.90	1.60	2.21	2.27	7.53	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.22	8.59	8.41	8.28	7.81	8.34	8.28	1.417E+04	2.399E+03	5.91
2	8.25	8.24	8.54	8.20	7.96	8.39	8.26	1.417E+04	2.457E+03	5.77
3	8.31	8.41	8.50	8.71	8.66	8.54	8.52	1.439E+04	2.441E+03	5.90
4	9.76	9.61	9.70	9.97	9.16	10.21	9.57	1.391E+04	2.042E+03	6.81
5	10.93	10.73	10.53	9.92	10.75	11.14	10.67	1.412E+04	1.814E+03	7.78

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	11.12	9.90	1.62	2.22	2.29	7.54	2.25			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.24	8.61	8.41	8.29	7.75	8.34	8.27	1.412E+04	2.396E+03	5.89
2	8.29	8.29	8.54	8.20	7.96	8.40	8.28	1.411E+04	2.444E+03	5.77
3	8.35	8.42	8.54	8.74	8.67	8.57	8.55	1.433E+04	2.425E+03	5.91
4	9.79	9.67	9.71	9.04	9.19	10.24	9.61	1.385E+04	2.026E+03	6.84
5	10.94	10.73	10.55	9.96	10.77	11.16	10.69	1.406E+04	1.805E+03	7.79

Data Set Number = 11

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	11.49	9.85	1.59	2.21	2.31	7.64	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.33	7.71	7.42	7.35	7.07	7.59	7.41	9.797E+03	1.942E+03	5.04
2	7.55	7.56	7.82	7.52	7.46	7.71	7.61	9.799E+03	1.917E+03	5.11
3	7.75	7.62	7.86	8.05	8.01	7.85	7.89	9.959E+03	1.893E+03	5.26
4	8.54	8.62	8.52	8.16	8.28	8.97	8.51	9.629E+03	1.673E+03	5.76
5	10.09	10.05	9.90	9.41	9.97	10.35	9.96	9.770E+03	1.381E+03	7.08

Data Set Number = 12

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	11.52	9.84	1.59	2.22	2.31	7.65	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.32	7.72	7.47	7.35	7.08	7.60	7.42	9.786E+03	1.937E+03	5.05
2	7.52	7.59	7.85	7.56	7.50	7.73	7.63	9.791E+03	1.910E+03	5.13
3	7.76	7.92	7.90	8.10	8.05	7.88	7.93	9.955E+03	1.878E+03	5.30
4	8.59	8.65	8.57	8.18	8.33	8.97	8.55	9.622E+03	1.662E+03	5.79
5	10.10	10.07	9.86	9.41	9.97	10.35	9.96	9.761E+03	1.379E+03	7.08

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	12.00	9.87	1.47	2.13	2.27	7.78	2.20	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	6.55	6.92	6.58	6.56	6.38	6.84	6.64	6.757E+03
2	6.80	6.85	7.09	6.84	6.94	7.05	6.93	6.765E+03
3	7.11	7.04	7.14	7.35	7.17	7.09	7.15	6.887E+03
4	7.39	7.58	7.40	7.24	7.32	7.80	7.45	6.651E+03
5	9.28	9.37	9.20	8.85	9.23	9.57	9.25	6.747E+03

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	12.03	9.87	1.47	2.13	2.28	7.79	2.20	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	6.54	6.92	6.60	6.55	6.40	6.85	6.64	6.781E+03
2	6.80	6.86	7.09	6.86	6.93	7.06	6.93	6.791E+03
3	7.09	7.06	7.15	7.32	7.16	7.11	7.15	6.908E+03
4	7.37	7.54	7.40	7.26	7.32	7.75	7.44	6.677E+03
5	9.31	9.36	9.23	8.87	9.26	9.58	9.27	6.774E+03

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	12.38	10.14	1.46	2.23	2.25	7.99	2.24	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	5.53	6.00	5.65	5.52	5.58	5.93	5.70	3.943E+03
2	5.87	5.92	6.16	6.00	6.13	6.16	6.04	3.959E+03
3	6.46	6.28	6.34	6.64	6.36	6.29	6.40	4.034E+03
4	6.56	6.84	6.61	6.44	6.48	6.97	6.65	3.893E+03
5	8.40	8.55	8.50	8.20	8.42	8.72	8.47	3.950E+03

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	12.40	10.22	1.48	2.24	2.26	8.03	2.25	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	5.55	6.01	5.68	5.55	5.62	5.96	5.73	3.943E+03
2	5.90	5.95	6.19	6.02	6.13	6.18	6.06	3.958E+03
3	6.49	6.35	6.40	6.66	6.41	6.34	6.44	4.035E+03
4	6.61	6.89	6.67	6.47	6.52	7.00	6.69	3.896E+03
5	8.41	8.55	8.51	8.22	8.44	8.71	8.47	3.953E+03

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	12.56	11.36	1.36	2.18	2.21	8.43	2.20	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	4.46	4.79	4.59	4.44	4.60	4.75	4.60	2.024E+03
2	4.90	4.92	5.01	5.01	5.01	5.01	4.98	2.038E+03
3	5.51	5.50	5.53	5.61	5.53	5.49	5.53	2.081E+03
4	5.92	6.02	5.97	5.89	5.92	6.11	5.97	2.006E+03
5	7.12	7.23	7.28	6.94	7.05	7.38	7.17	2.036E+03

Data Set Number = 18

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	12.56	11.43	1.38	2.19	2.21	8.46	2.20			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.47	4.79	4.58	4.44	4.59	4.74	4.60	2.029E+03	8.701E+02	2.33
2	4.91	4.94	5.02	5.00	5.00	5.00	4.98	2.043E+03	7.922E+02	2.58
3	5.49	5.48	5.53	5.60	5.53	5.50	5.52	2.086E+03	6.968E+02	2.99
4	5.94	6.01	5.98	5.90	5.93	6.08	5.97	2.012E+03	6.067E+02	3.32
5	7.11	7.24	7.29	6.93	7.04	7.38	7.17	2.040E+03	4.658E+02	4.38

Data Set Number = 19

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	12.63	11.92	1.34	2.22	2.24	8.63	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.97	4.27	4.08	3.99	4.13	4.27	4.12	1.186E+03	6.501E+02	1.82
2	4.41	4.41	4.53	4.51	4.59	4.58	4.50	1.197E+03	5.751E+02	2.08
3	5.15	5.08	4.99	5.23	5.12	4.96	5.09	1.226E+03	4.837E+02	2.53
4	5.66	5.65	5.70	5.41	5.46	5.71	5.60	1.182E+03	4.051E+02	2.92
5	6.24	6.35	6.42	6.05	6.15	6.46	6.28	1.198E+03	3.454E+02	3.47

Data Set Number = 20

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	12.63	11.94	1.36	2.22	2.26	8.64	2.24			
Tube	Wall Temperatures (°C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(°C)	(W/m²)	(W/m²·K)	(K)
1	4.01	4.29	4.08	4.01	4.13	4.29	4.14	1.186E+03	6.464E+02	1.83
2	4.42	4.44	4.52	4.50	4.62	4.61	4.52	1.199E+03	5.730E+02	2.09
3	5.19	5.11	5.01	5.24	5.16	4.99	5.12	1.227E+03	4.798E+02	2.56
4	5.72	5.69	5.74	5.46	5.49	5.76	5.64	1.183E+03	4.005E+02	2.95
5	6.23	6.36	6.42	6.06	6.16	6.45	6.28	1.200E+03	3.465E+02	3.46

NOTE 20 X-Y pairs were stored in plot data file DSMDS3

Disc number = 11

File name = DSMDS4

This data set taken on 02-23 14:00 20

Data Set Number = 1

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tlda			
	6.67	5.41	1.49	2.28	2.25	4.51	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.28	22.42	19.55	19.26	19.33	21.94	20.30	8.625E+04	4.920E+03	17.52
2	18.18	18.04	18.47	17.43	18.13	18.18	18.07	8.608E+04	5.673E+02	15.17
3	17.48	17.42	17.43	17.24	17.76	16.94	17.38	8.716E+04	6.074E+02	14.35
4	20.21	20.63	21.21	17.63	17.65	22.04	19.96	8.429E+04	5.012E+03	16.82
5	24.79	24.12	23.75	20.8E	23.45	25.18	23.70	8.544E+04	4.183E+03	20.42

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.54	5.37	1.49	2.29	2.23	4.46	2.26

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.33	22.36	19.41	19.19	19.37	21.94	20.26	8.611E+04	4.918E+03	17.51
2	18.19	18.16	18.46	17.42	18.11	18.15	18.08	8.599E+04	5.659E+03	15.19
3	17.39	17.41	17.47	17.30	17.68	16.95	17.37	8.704E+04	6.068E+03	14.35
4	20.30	20.69	21.36	18.14	17.91	22.24	20.11	8.421E+04	4.962E+03	16.97
5	24.92	24.49	24.29	20.80	23.53	25.33	23.89	8.540E+04	4.141E+03	20.62

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.16	5.20	1.41	2.18	2.14	4.26	2.16

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.87	19.14	16.88	16.72	17.01	18.55	17.53	7.004E+04	4.685E+03	14.95
2	15.79	15.67	16.14	15.17	15.69	15.83	15.72	6.993E+04	5.376E+03	13.01
3	14.35	14.24	14.64	14.45	14.53	14.32	14.42	7.083E+04	6.115E+03	11.58
4	16.11	16.34	16.73	14.33	14.52	17.94	15.99	6.059E+04	5.262E+03	13.03
5	19.64	18.61	17.69	15.86	18.38	18.98	18.19	6.955E+04	4.606E+03	15.10

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.14	5.19	1.44	2.21	2.16	4.25	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.93	19.14	16.99	16.75	16.83	18.55	17.53	7.005E+04	4.692E+03	14.93
2	15.85	15.74	16.22	15.21	15.71	15.89	15.77	6.998E+04	5.367E+03	13.04
3	14.43	14.35	14.67	14.51	14.63	14.44	14.50	7.088E+04	6.099E+03	11.64
4	16.15	16.42	16.75	14.39	14.56	19.03	16.05	6.858E+04	5.244E+03	13.08
5	19.74	18.74	17.76	15.91	18.45	19.09	18.28	6.954E+04	4.585E+03	15.17

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.30	5.30	1.43	2.15	2.13	4.34	2.14

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.16	15.88	14.30	14.19	13.79	15.27	14.60	5.333E+04	4.398E+03	12.13
2	13.70	13.62	14.12	13.26	13.63	13.88	13.70	5.325E+04	4.797E+03	11.10
3	12.41	12.36	12.59	12.57	12.54	12.47	12.49	5.396E+04	5.533E+03	9.75
4	14.16	13.81	14.31	12.38	12.61	15.30	13.76	5.221E+04	4.788E+03	10.91
5	16.78	15.70	14.73	13.46	15.73	15.92	15.39	5.297E+04	4.272E+03	12.40

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.31	5.30	1.43	2.15	2.14	4.34	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.19	15.89	14.31	14.21	13.78	15.31	14.61	5.356E+04	4.415E+03	12.13
2	13.71	13.62	14.16	13.31	13.66	13.89	13.72	5.347E+04	4.810E+03	11.12
3	12.44	12.36	12.59	12.59	12.55	12.49	12.51	5.416E+04	5.546E+03	9.77
4	14.16	13.84	14.33	12.41	12.61	15.33	13.78	5.242E+04	4.801E+03	10.92
5	16.92	15.73	14.77	13.44	15.72	15.97	15.41	5.317E+04	4.282E+03	12.42

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.19	6.13	1.48	2.10	2.07	4.93	2.09			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.82	12.04	11.24	10.90	10.65	11.51	11.19	3.202E+04	3.604E+03	8.88
2	10.45	10.40	10.85	10.20	10.17	10.64	10.45	3.198E+04	3.990E+03	8.01
3	9.67	9.38	9.60	9.87	9.74	9.85	9.69	3.241E+04	4.554E+03	7.12
4	11.19	10.77	10.97	10.00	10.18	11.82	10.82	3.134E+04	3.856E+03	8.13
5	13.17	12.54	11.83	11.12	12.67	12.85	12.36	3.180E+04	3.333E+03	9.54

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.22	6.14	1.48	2.11	2.09	4.95	2.10			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.85	12.02	11.28	10.94	10.59	11.50	11.20	3.202E+04	3.606E+03	8.88
2	10.47	10.46	10.85	10.22	10.17	10.65	10.47	3.199E+04	3.987E+03	8.02
3	9.67	9.41	9.61	9.88	9.75	9.85	9.69	3.242E+04	4.555E+03	7.12
4	11.20	10.75	10.98	10.00	10.17	11.80	10.82	3.136E+04	3.865E+03	8.11
5	13.18	12.54	11.82	11.13	12.66	12.80	12.35	3.182E+04	3.343E+03	9.52

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.25	7.76	1.53	2.11	2.12	5.85	2.12			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.44	8.37	7.88	7.52	7.26	8.09	7.76	1.667E+04	3.029E+03	5.50
2	7.57	7.53	7.79	7.43	7.19	7.73	7.54	1.666E+04	3.234E+03	5.15
3	7.63	7.60	7.66	7.91	7.88	7.81	7.75	1.690E+04	3.227E+03	5.24
4	9.73	8.38	8.49	8.18	8.24	8.01	8.51	1.635E+04	2.787E+03	5.86
5	10.56	10.39	10.07	9.68	10.48	10.67	10.31	1.659E+04	2.202E+03	7.53

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.26	7.83	1.53	2.10	2.12	5.87	2.11			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.38	8.38	7.88	7.48	7.14	8.11	7.73	1.874E+04	3.057E+03	5.48
2	7.57	7.52	7.80	7.43	7.21	7.75	7.55	1.873E+04	3.239E+03	5.16
3	7.64	7.61	7.68	7.91	7.89	7.80	7.75	1.898E+04	3.239E+03	5.24
4	8.72	8.77	8.45	8.18	8.21	8.99	8.49	1.843E+04	2.807E+03	5.85
5	10.57	10.40	10.07	9.71	10.45	10.56	10.29	1.666E+04	2.214E+03	7.52

Data Set Number = 11

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.08	6.66	1.52	2.10	2.10	5.42	2.10			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.39	7.03	6.71	6.44	6.35	6.91	6.65	1.137E+04	2.563E+03	4.43
2	6.54	6.54	6.62	6.39	6.24	6.58	6.48	1.137E+04	2.745E+03	4.14
3	6.78	6.79	6.97	7.01	6.95	6.98	6.92	1.155E+04	2.599E+03	4.44
4	7.72	7.54	7.56	7.51	7.51	7.98	7.64	1.116E+04	2.215E+03	5.04
5	9.57	9.64	9.26	9.04	9.45	9.72	9.45	1.132E+04	1.685E+03	6.72

## Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
8.05	6.58	1.51	2.09	2.09	5.38	2.09

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.40	7.07	6.71	6.44	6.30	6.90	6.64	1.134E+04	2.559E+03	4.43
2	6.55	6.55	6.63	6.39	6.24	6.58	6.49	1.135E+04	2.729E+03	4.16
3	6.79	6.79	7.01	7.01	6.99	7.02	6.93	1.152E+04	2.578E+03	4.47
4	7.72	7.55	7.60	7.48	7.51	7.98	7.64	1.114E+04	2.206E+03	5.05
5	9.57	9.66	9.31	9.04	9.51	9.75	9.47	1.130E+04	1.673E+03	6.75

## Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
7.55	6.33	1.54	2.11	2.14	5.14	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.72	6.18	5.90	5.74	5.64	6.08	5.88	7.872E+03	2.151E+03	3.66
2	6.02	6.05	6.04	5.90	5.80	6.00	5.97	7.885E+03	2.178E+03	3.62
3	6.43	6.44	6.61	6.62	6.52	6.56	6.53	8.016E+03	1.980E+03	4.05
4	7.05	7.02	6.99	6.94	6.97	7.32	7.05	7.747E+03	1.744E+03	4.44
5	8.77	8.94	8.66	8.42	8.71	8.94	8.74	7.858E+03	1.309E+03	6.00

## Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
7.55	6.33	1.54	2.13	2.14	5.14	2.14

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.75	6.18	5.90	5.75	5.61	6.05	5.87	7.899E+03	2.169E+03	3.64
2	6.03	6.06	6.02	5.88	5.80	6.00	5.97	7.904E+03	2.193E+03	3.60
3	6.40	6.38	6.60	6.61	6.51	6.56	6.51	8.037E+03	1.999E+03	4.02
4	7.02	7.02	6.98	6.92	6.97	7.35	7.04	7.765E+03	1.755E+03	4.43
5	8.78	8.95	8.64	8.44	8.72	8.97	8.75	7.880E+03	1.313E+03	6.00

## Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
7.52	6.37	1.45	2.09	2.16	5.12	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.05	5.29	5.09	5.07	4.88	5.22	5.11	5.074E+03	1.743E+03	2.91
2	5.44	5.50	5.42	5.34	5.28	5.39	5.39	5.088E+03	1.662E+03	3.06
3	5.90	5.85	5.98	6.05	5.94	5.94	5.95	5.185E+03	1.486E+03	3.49
4	6.52	6.64	6.55	6.41	6.44	6.84	6.57	5.005E+03	1.258E+03	3.98
5	7.52	7.70	7.64	7.47	7.57	7.86	7.64	5.074E+03	1.031E+03	4.92

## Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav
7.55	6.39	1.47	2.09	2.16	5.14	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.04	5.31	5.12	5.07	4.88	5.24	5.12	5.041E+03	1.726E+03	2.92
2	5.44	5.49	5.42	5.35	5.26	5.38	5.39	5.056E+03	1.652E+03	3.06
3	5.91	5.89	5.98	6.05	5.97	5.95	5.97	5.146E+03	1.469E+03	3.50
4	6.54	6.62	6.56	6.42	6.44	6.83	6.57	4.974E+03	1.251E+03	3.98
5	7.54	7.73	7.65	7.49	7.52	7.81	7.64	5.046E+03	1.025E+03	4.92

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.85	6.49	1.38	2.10	2.19	5.24	2.15			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.34	4.41	4.32	4.35	4.27	4.40	4.34	2.836E+03	1.333E+03	2.13
2	4.61	4.65	4.58	4.58	4.52	4.56	4.58	2.851E+03	1.276E+03	2.23
3	5.05	5.04	5.09	5.18	5.06	5.05	5.08	2.909E+03	1.117E+03	2.60
4	5.64	5.61	5.68	5.50	5.52	5.75	5.62	2.809E+03	9.326E+02	3.01
5	5.95	6.11	6.14	5.98	6.06	6.22	6.08	2.849E+03	8.524E+02	3.34

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.91	6.48	1.35	2.08	2.18	5.25	2.13			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.34	4.43	4.32	4.35	4.29	4.41	4.36	2.855E+03	1.322E+03	2.16
2	4.62	4.66	4.60	4.59	4.53	4.60	4.60	2.869E+03	1.263E+03	2.27
3	5.09	5.06	5.11	5.21	5.11	5.07	5.11	2.928E+03	1.104E+03	2.65
4	5.67	5.64	5.70	5.53	5.54	5.79	5.64	2.826E+03	9.240E+02	3.06
5	6.03	6.18	6.20	6.03	6.13	6.28	6.14	2.865E+03	8.360E+02	3.43

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.74	6.77	1.30	2.10	2.15	5.60	2.13			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	3.67	3.68	3.63	3.67	3.65	3.67	3.66	1.343E+03	9.108E+02	1.47
2	3.97	3.99	3.85	3.89	3.82	3.83	3.89	1.356E+03	8.614E+02	1.57
3	4.22	4.29	4.36	4.28	4.32	4.35	4.30	1.388E+03	7.474E+02	1.85
4	4.71	4.53	4.72	4.65	4.69	4.62	4.65	1.337E+03	6.436E+02	2.03
5	4.78	4.66	4.96	4.88	4.93	5.06	4.91	1.356E+03	6.144E+02	2.21

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.81	6.79	1.28	2.10	2.18	5.63	2.14			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	3.67	3.69	3.62	3.67	3.65	3.67	3.66	1.340E+03	9.186E+02	1.46
2	3.97	3.99	3.85	3.89	3.82	3.84	3.89	1.352E+03	8.668E+02	1.56
3	4.22	4.29	4.38	4.29	4.32	4.35	4.31	1.382E+03	7.476E+02	1.85
4	4.70	4.55	4.73	4.67	4.65	4.64	4.66	1.334E+03	6.438E+02	2.07
5	4.79	4.69	4.99	4.89	4.95	5.07	4.93	1.352E+03	6.121E+02	2.21

NOTE 20 X-Y pairs were stored in plot data file PDSMDS4

Dist number = 11  
 File name DSDMS5  
 This data set taken on 02-24-03 28 40

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.13	6.44	1.51	2.28	2.27	5.03	2.28

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	13.87	16.47	14.90	14.00	14.10	16.01	14.89	4.619E+04	3.749E+03	12.32
2	13.91	13.85	14.36	13.61	13.71	14.09	13.92	4.614E+04	4.113E+03	11.22
3	13.02	12.56	12.61	12.97	12.99	12.81	12.83	4.672E+04	4.675E+03	9.99
4	14.22	13.37	14.33	12.52	12.73	14.78	13.66	4.518E+04	4.221E+03	10.70
5	15.67	14.71	13.83	13.20	15.15	15.07	14.61	4.587E+04	3.982E+03	11.52

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.02	6.36	1.49	2.28	2.27	4.96	2.28

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	13.88	16.47	14.86	14.01	14.00	16.04	14.88	4.631E+04	3.763E+03	12.31
2	13.93	13.85	14.37	13.60	13.71	14.09	13.92	4.626E+04	4.122E+03	11.22
3	13.05	12.57	12.68	12.96	13.01	12.84	12.85	4.682E+04	4.672E+03	10.02
4	14.23	13.38	14.34	12.54	12.73	14.78	13.67	4.527E+04	4.225E+03	10.71
5	15.68	14.74	13.84	13.16	15.15	15.12	14.61	4.597E+04	3.987E+03	11.53

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.99	6.46	1.35	2.14	2.13	4.94	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.40	13.40	12.26	11.50	11.65	13.02	12.20	3.284E+04	3.336E+03	9.84
2	11.34	11.30	11.79	11.20	11.10	11.54	11.38	3.280E+04	3.690E+03	8.89
3	10.94	10.72	10.64	11.08	11.15	10.96	10.95	3.323E+04	3.990E+03	8.33
4	11.97	11.27	11.90	10.80	10.93	12.27	11.52	3.212E+04	3.660E+03	8.78
5	13.06	12.52	11.88	11.32	12.86	12.94	12.43	3.261E+04	3.412E+03	9.56

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.97	6.45	1.35	2.15	2.12	4.92	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.41	13.38	12.30	11.50	11.57	13.00	12.19	3.282E+04	3.337E+03	9.83
2	11.36	11.30	11.80	11.20	11.11	11.55	11.39	3.278E+04	3.683E+03	8.90
3	10.96	10.73	10.86	11.06	11.16	10.96	10.96	3.321E+04	3.982E+03	8.34
4	11.99	11.24	11.92	10.79	10.93	12.32	11.53	3.210E+04	3.653E+03	8.79
5	13.10	12.52	11.91	11.30	12.86	12.91	12.43	3.260E+04	3.411E+03	9.56

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.16	7.22	1.47	2.14	2.11	5.62	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.13	9.39	8.74	8.19	8.24	9.11	8.63	1.809E+04	2.843E+03	6.36
2	8.10	8.09	8.43	8.11	7.82	8.31	8.14	1.810E+04	3.151E+03	5.74
3	8.26	8.39	8.31	8.63	8.63	8.35	8.43	1.635E+04	3.110E+03	5.90
4	8.95	8.56	8.76	6.40	8.39	9.18	8.71	1.772E+04	2.929E+03	6.05
5	10.45	10.24	9.99	9.67	10.40	10.57	10.22	1.800E+04	2.422E+03	7.43

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.21	7.25	1.47	2.14	2.11	5.64	2.12			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.12	9.39	8.74	8.16	8.29	9.10	8.63	1.797E+04	2.823E+03	6.36
2	8.09	8.09	8.43	8.09	7.82	8.31	8.14	1.796E+04	3.131E+03	5.74
3	8.23	8.35	8.30	8.60	8.63	8.33	8.41	1.823E+04	3.100E+03	5.88
4	8.93	8.53	8.71	8.39	8.38	9.17	8.69	1.761E+04	2.922E+03	6.03
5	10.45	10.26	9.95	9.70	10.37	10.46	10.20	1.788E+04	2.411E+03	7.41

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.28	8.59	1.50	2.14	2.13	6.45	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.43	7.16	6.77	6.46	6.39	6.95	6.69	1.205E+04	2.715E+03	4.44
2	6.59	6.58	6.68	6.46	6.23	6.62	6.52	1.206E+04	2.912E+03	4.14
3	6.71	6.83	6.92	6.99	7.02	6.94	6.90	1.225E+04	2.792E+03	4.39
4	7.49	7.19	7.37	7.20	7.23	7.64	7.35	1.183E+04	2.512E+03	4.71
5	9.42	9.39	9.19	8.97	9.37	9.56	9.32	1.201E+04	1.835E+03	6.55

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.31	8.63	1.52	2.15	2.14	6.49	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.45	7.22	5.80	6.48	6.39	6.95	6.71	1.204E+04	2.708E+03	4.45
2	6.58	6.59	6.70	6.48	6.32	6.64	6.55	1.205E+04	2.901E+03	4.15
3	6.71	6.84	6.95	7.02	7.02	6.97	6.92	1.224E+04	2.785E+03	4.39
4	7.48	7.19	7.36	7.25	7.25	7.67	7.37	1.182E+04	2.505E+03	4.72
5	9.41	9.42	9.19	9.02	9.34	9.55	9.32	1.201E+04	1.835E+03	6.54

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.17	8.10	1.59	2.20	2.21	6.29	2.20			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.65	6.05	5.80	5.65	5.57	5.90	5.77	8.251E+03	2.378E+03	3.47
2	5.89	5.91	5.62	5.60	5.51	5.72	5.76	8.268E+03	2.487E+03	3.32
3	5.94	6.07	6.40	6.15	6.19	6.38	6.19	8.400E+03	2.315E+03	3.63
4	6.72	6.59	6.66	6.82	6.80	6.91	6.75	8.110E+03	1.996E+03	4.06
5	8.90	9.02	8.63	8.14	8.41	8.97	8.68	8.234E+03	1.405E+03	5.85

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.15	8.02	1.59	2.20	2.22	6.26	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetat
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.65	6.05	5.81	5.64	5.58	5.92	5.78	8.251E+03	2.379E+03	3.47
2	5.85	5.85	5.60	5.67	5.47	5.72	5.73	8.268E+03	2.511E+03	3.29
3	5.95	6.06	6.39	6.17	6.22	6.36	6.19	8.410E+03	2.319E+03	3.63
4	6.74	6.59	6.66	6.74	6.73	6.90	6.73	8.111E+03	2.011E+03	4.03
5	8.90	9.01	8.64	8.12	8.36	8.91	8.66	8.235E+03	1.411E+03	5.84

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.55	7.98	1.53	2.20	2.27	6.02	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	4.99	5.45	5.16	4.96	4.99	5.39	5.16	5.487E+03	1.933E+03	2.84
2	5.34	5.36	5.42	5.31	5.34	5.41	5.36	5.508E+03	1.888E+03	2.92
3	5.87	5.82	5.95	6.02	5.91	5.95	5.92	5.607E+03	1.677E+03	3.34
4	6.33	6.42	6.34	6.35	6.41	6.57	6.40	5.406E+03	1.461E+03	3.70
5	7.91	8.08	7.97	7.40	7.59	8.23	7.86	5.488E+03	1.091E+03	5.03

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.54	8.04	1.54	2.21	2.30	6.04	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	5.08	5.44	5.15	5.09	5.01	5.38	5.19	5.466E+03	1.916E+03	2.85
2	5.48	5.54	5.41	5.32	5.41	5.41	5.41	5.489E+03	1.866E+03	2.94
3	5.86	5.83	6.00	6.03	5.92	5.95	5.93	5.580E+03	1.675E+03	3.33
4	6.33	6.35	6.34	6.35	6.37	6.60	6.39	5.384E+03	1.469E+03	3.66
5	7.94	8.11	7.98	7.34	7.55	8.16	7.85	5.471E+03	1.096E+03	4.99

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.53	7.78	1.25	2.05	2.24	5.66	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	4.45	4.72	4.52	4.46	4.45	4.68	4.55	3.160E+03	1.353E+03	2.34
2	4.79	4.83	4.95	4.92	4.87	4.92	4.98	3.181E+03	1.254E+03	2.54
3	5.46	5.36	5.27	5.59	5.41	5.22	5.38	3.244E+03	1.115E+03	2.91
4	5.90	5.91	5.93	5.68	5.71	5.95	5.85	3.122E+03	9.628E+02	3.24
5	6.39	6.55	6.54	6.20	6.31	6.70	6.45	3.172E+03	8.535E+02	3.72

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.55	7.78	1.25	2.05	2.23	5.86	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	4.45	4.74	4.61	4.48	4.59	4.70	4.59	3.160E+03	1.328E+03	2.38
2	4.80	4.87	4.97	4.92	4.85	4.94	4.89	3.180E+03	1.247E+03	2.55
3	5.45	5.39	5.28	5.57	5.45	5.24	5.40	3.242E+03	1.108E+03	2.93
4	5.93	5.88	5.94	5.72	5.77	6.03	5.88	3.124E+03	9.528E+02	3.28
5	6.41	6.54	6.57	6.26	6.38	6.74	6.48	3.171E+03	8.443E+02	3.76

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.99	8.12	1.22	2.33	2.28	6.11	2.31

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	3.84	4.08	4.11	3.85	4.13	4.05	4.01	1.523E+03	9.293E+02	1.64
2	4.20	4.21	4.68	4.68	4.47	4.50	4.46	1.541E+03	7.867E+02	1.96
3	4.92	5.01	4.53	4.94	5.05	4.54	4.94	1.572E+03	7.117E+02	2.21
4	5.11	4.92	5.12	4.78	4.81	5.05	4.97	1.513E+03	6.846E+02	2.21
5	5.01	5.12	5.17	4.92	4.99	5.20	5.07	1.538E+03	7.053E+02	2.18

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.06	8.13	1.21	2.27	2.31	6.13	2.29

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.87	4.00	4.19	3.87	4.17	3.98	4.01	1.513E+03	9.140E+02	1.66
2	4.26	4.31	4.69	4.71	4.43	4.49	4.49	1.529E+03	7.655E+02	2.00
3	4.91	4.93	4.65	4.98	4.91	4.64	4.83	1.564E+03	7.049E+02	2.22
4	5.02	4.94	5.04	4.83	4.87	5.07	4.96	1.505E+03	6.786E+02	2.22
5	5.03	5.13	5.11	4.93	5.01	5.19	5.07	1.528E+03	6.961E+02	2.19

NOTE: 16 X-Y pairs were stored in plot data file PDSMD55

Dist number = 12  
 File name D5MD56  
 This data set taken on 102:24:10 46:14

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.53	7.07	1.05	2.09	2.17	5.55	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	21.66	27.03	23.11	21.52	22.27	26.72	23.72	9.409E+04	4.470E+03	21.05

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.53	7.07	1.05	2.09	2.18	5.55	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	21.72	27.08	23.01	21.60	22.26	26.81	23.75	9.414E+04	4.468E+03	21.07

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.61	7.35	1.04	2.20	2.31	5.73	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	19.30	22.22	20.16	19.12	19.49	22.78	20.65	7.950E+04	4.428E+03	17.96

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.61	7.37	1.05	2.22	2.33	5.74	2.27

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	19.36	23.21	20.14	19.18	19.55	22.78	20.70	7.943E+04	4.422E+03	17.96

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.75	7.54	1.05	2.09	2.18	5.85	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	14.78	15.63	15.02	15.12	12.95	14.85	14.89	4.935E+04	4.010E+03	12.45

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.81	7.55	1.27	2.09	2.19	5.88	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	14.77	15.63	14.99	15.06	13.94	14.87	14.88	4.971E+04	4.002E+03	12.42

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.49	7.72	1.31	2.13	2.22	6.17	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	12.86	12.61	12.69	12.93	11.96	11.85	12.48	2.980E+04	2.951E+03	10.10

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.57	7.73	1.31	2.10	2.22	6.20	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	12.90	12.59	12.67	12.95	11.97	11.83	12.49	2.979E+04	2.950E+03	10.10

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.00	8.15	1.29	2.17	2.23	6.49	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	10.62	10.20	10.49	10.56	10.17	9.74	10.31	1.438E+04	1.802E+03	7.98

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.06	8.26	1.31	2.17	2.24	6.55	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	10.68	10.18	10.45	10.59	10.24	9.73	10.31	1.437E+04	1.803E+03	7.97

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.30	9.11	1.26	2.20	2.26	6.90	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.75	9.20	9.63	9.66	9.40	8.99	9.44	9.941E+03	1.403E+03	7.09

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.33	9.19	1.29	2.20	2.28	6.94	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.74	9.19	9.64	9.64	9.40	8.99	9.43	9.961E+03	1.407E+03	7.06

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.50	9.66	1.24	2.21	2.31	7.13	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetatb (K)
1	8.96	8.33	8.90	8.89	8.83	8.12	8.67	6.779E+03	1.073E+03	6.32

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.51	9.70	1.23	2.22	2.31	7.15	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetatb (K)
1	9.01	8.32	8.85	8.96	8.81	8.11	8.68	6.787E+03	1.073E+03	6.32

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.60	9.88	1.09	2.23	2.30	7.19	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetatb (K)
1	8.09	7.34	7.99	8.07	7.98	7.22	7.78	3.746E+03	6.884E+02	5.44

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.60	9.89	1.08	2.22	2.30	7.19	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetatb (K)
1	8.08	7.32	7.95	8.05	7.93	7.21	7.76	3.754E+03	6.919E+02	5.43

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.69	10.02	1.65	2.16	2.27	7.12	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetatb (K)
1	6.91	6.22	6.88	6.93	6.85	6.12	6.65	1.890E+03	4.329E+02	4.37

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.69	10.02	1.64	2.14	2.26	7.12	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetatb (K)
1	6.92	6.22	6.87	6.92	6.84	6.14	6.65	1.890E+03	4.306E+02	4.39

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.75	10.08	1.47	2.08	2.44	7.10	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetatb (K)
1	6.26	5.64	6.25	6.30	6.24	5.57	6.05	1.123E+03	3.014E+02	3.73

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.75	10.10	.48	2.02	2.48	7.11	2.25

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.30	5.66	6.26	6.32	6.26	5.59	6.07	1.118E+03	2.980E+02	3.75

NOTE: 20 X-Y pairs were stored in plot data file PDSMD56

Disk number = 12

File name DSMDS7

This data set taken on : 02:24:11:52:13

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.65	8.26	1.21	2.13	2.20	6.37	2.17

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	20.38	23.81	20.21	19.94	20.46	23.37	21.36	9.264E+04	4.965E+03	18.66
2	20.38	20.46	20.87	19.85	21.24	20.86	20.61	9.247E+04	5.201E+03	17.78

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.60	8.23	1.20	2.13	2.20	6.35	2.16

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	20.35	23.76	20.28	19.92	20.54	23.35	21.37	9.243E+04	4.951E+03	18.67
2	20.31	20.45	20.88	19.81	21.19	20.96	20.60	9.231E+04	5.193E+03	17.77

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.19	7.97	1.32	2.21	2.26	6.16	2.24

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	17.89	20.43	18.12	17.84	18.16	19.88	18.72	7.426E+04	4.628E+03	16.04
2	17.35	17.13	17.60	16.56	17.45	17.69	17.30	7.414E+04	5.115E+03	14.49

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.18	7.94	1.31	2.20	2.26	6.14	2.23

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	17.87	20.43	18.13	17.81	18.11	19.87	18.70	7.440E+04	4.642E+03	16.03
2	17.32	17.10	17.60	16.57	17.45	17.68	17.29	7.428E+04	5.129E+03	14.48

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.07	7.82	1.33	2.15	2.19	6.06	2.17

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	14.19	15.50	14.81	14.48	14.13	15.19	14.77	5.288E+04	4.311E+03	12.27
2	15.02	14.52	15.02	13.97	14.51	15.24	14.71	5.276E+04	4.367E+03	12.08

Data Set Number = 6

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	9.00	7.82	1.34	2.15	2.19	6.05	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.19	15.79	14.79	14.48	14.14	15.17	14.76	5.262E+04	4.292E+03	12.26
2	15.04	14.54	14.98	13.97	14.44	15.17	14.69	5.252E+04	4.354E+03	12.06

Data Set Number = 7

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	9.09	7.93	1.41	2.17	2.20	6.14	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	11.54	12.00	11.78	11.77	10.36	11.41	11.48	3.185E+04	3.511E+03	9.07
2	13.39	13.13	13.33	12.68	12.88	13.46	13.14	3.179E+04	2.997E+03	10.61

Data Set Number = 8

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	9.10	7.94	1.41	2.18	2.21	6.15	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.60	11.98	11.76	11.79	10.42	11.41	11.49	3.180E+04	3.502E+03	9.08
2	13.44	13.11	13.33	12.59	12.90	13.51	13.15	3.174E+04	2.994E+03	10.60

Data Set Number = 9

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	9.19	8.03	1.27	2.09	2.13	6.16	2.11			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.53	9.76	9.72	9.60	9.02	9.39	9.51	1.643E+04	2.264E+03	7.26
2	11.59	11.60	11.25	10.95	11.01	11.32	11.29	1.641E+04	1.842E+03	8.91

Data Set Number = 10

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	9.21	8.05	1.27	2.09	2.13	6.17	2.11

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.54	9.78	9.70	9.59	8.99	9.39	9.50	1.640E+04	2.262E+03	7.25
2	11.59	11.59	11.30	10.98	11.05	11.31	11.30	1.638E+04	1.836E+03	8.93

Data Set Number = 11

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tva	Ttda
	9.94	8.10	1.31	2.17	2.21	6.42	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.48	8.67	8.67	8.45	8.35	8.43	8.51	1.061E+04	1.709E+03	6.21
2	10.63	10.70	10.24	10.00	10.04	10.21	10.30	1.061E+04	1.348E+03	7.87

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.92	8.10	1.31	2.18	2.22	6.44	2.20

Tube #	Wall Temperatures (Deg C)				Tnave		Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	8.48	8.65	8.68	8.46	8.38	8.41	8.51	1.061E+04	1.711E+03	6.20
2	10.62	10.68	10.22	10.00	10.03	10.27	10.30	1.061E+04	1.349E+03	7.86

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.40	8.41	1.20	2.12	2.15	6.67	2.14

Tube #	Wall Temperatures (Deg C)				Tnave		Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	7.43	7.72	7.66	7.36	7.53	7.55	7.54	7.625E+03	1.436E+03	5.31
2	9.91	9.96	9.57	9.35	9.40	9.62	9.64	7.634E+03	1.049E+03	7.28

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.40	8.44	1.19	2.11	2.14	6.68	2.12

Tube #	Wall Temperatures (Deg C)				Tnave		Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	7.40	7.72	7.66	7.37	7.51	7.57	7.54	7.641E+03	1.436E+03	5.32
2	9.89	9.95	9.57	9.29	9.36	9.57	9.60	7.648E+03	1.054E+03	7.26

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.63	9.38	1.25	2.19	2.26	7.09	2.22

Tube #	Wall Temperatures (Deg C)				Tnave		Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.43	6.66	6.69	6.38	6.65	6.67	6.57	4.551E+03	1.067E+03	4.27
2	8.96	8.97	8.89	8.71	8.77	8.90	8.67	4.564E+03	7.091E+02	6.44

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.65	9.46	1.28	2.21	2.29	7.13	2.25

Tube #	Wall Temperatures (Deg C)				Tnave		Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.48	6.70	6.73	6.42	6.72	6.65	6.62	4.549E+03	1.062E+03	4.29
2	8.97	8.99	8.94	8.73	8.81	8.93	8.89	4.561E+03	7.089E+02	6.43

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.79	9.93	1.09	2.06	2.21	7.27	2.14

Tube #	Wall Temperatures (Deg C)				Tnave		Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.33	5.40	5.44	5.29	5.46	5.38	5.38	2.510E+03	7.907E+02	3.17
2	7.73	7.75	8.14	7.95	7.92	8.03	7.92	2.525E+03	4.523E+02	5.56

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.80	9.95	1.10	2.06	2.22	7.29	2.14

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.35	5.42	5.45	5.31	5.48	5.39	5.40	2.518E+03	7.890E+02	3.19
2	7.74	7.75	8.12	7.89	7.92	8.02	7.91	2.533E+03	4.547E+02	5.57

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.89	10.16	1.07	2.10	2.28	7.37	2.19

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.73	4.72	4.95	4.74	4.99	4.73	4.81	1.233E+03	4.822E+02	2.56
2	6.71	6.71	7.05	7.07	6.70	6.77	6.84	1.245E+03	2.796E+02	4.45

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.90	10.16	1.05	2.09	2.24	7.37	2.16

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.69	4.73	4.92	4.71	4.97	4.71	4.79	1.230E+03	4.802E+02	2.56
2	6.71	6.70	7.05	7.05	6.68	6.76	6.83	1.242E+03	2.775E+02	4.47

NOTE: 20 X-Y pairs were stored in plot data file PDSMDS7

Dist number = 12

File name DSMDES

This data set taken on 02:24:13.03 05

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.90	7.72	1.16	2.06	2.18	6.27	2.13

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	19.86	20.84	19.59	19.45	19.70	20.30	20.63	8.929E+04	4.966E+03	17.98
2	18.31	18.73	18.61	17.92	18.93	18.31	18.47	8.913E+04	5.678E+03	15.70
3	18.64	18.75	18.75	18.66	18.89	17.78	18.58	9.025E+04	5.759E+03	15.67

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.87	7.70	1.16	2.07	2.18	6.25	2.13

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.77	20.92	19.60	19.41	19.56	20.35	20.60	8.973E+04	4.997E+03	17.96
2	18.34	18.72	18.67	17.82	18.93	18.26	18.44	8.959E+04	5.719E+03	15.67
3	18.69	18.79	18.75	18.72	18.92	17.91	18.62	9.058E+04	5.773E+03	15.71

Data Set Number = 3

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.61	7.67	1.30	2.16	2.27	6.20	2.22

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	17.59	19.90	17.54	17.35	17.42	19.30	18.18	7.279E+04	4.688E+03	15.53
2	16.52	16.50	16.67	15.78	16.58	16.62	16.45	7.265E+04	5.318E+03	13.66
3	15.58	15.55	15.63	15.72	15.72	15.09	15.55	7.357E+04	5.826E+03	12.63

Data Set Number = 4

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.62	7.66	1.30	2.17	2.26	6.19	2.22

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	17.52	19.91	17.50	17.33	17.50	19.29	18.18	7.286E+04	4.692E+03	15.53
2	16.48	16.47	16.63	15.72	16.59	16.61	16.42	7.274E+04	5.333E+03	13.64
3	15.53	15.52	15.62	15.71	15.68	15.11	15.53	7.365E+04	5.838E+03	12.62

Data Set Number = 5

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.14	7.53	1.32	2.13	2.24	6.00	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	14.61	16.27	14.86	14.77	14.26	15.68	15.07	5.528E+04	4.407E+03	12.55
2	14.05	13.73	14.07	13.13	13.71	14.24	13.82	5.516E+04	4.941E+03	11.16
3	13.10	12.83	13.34	13.05	13.26	13.24	13.10	5.587E+04	5.418E+03	10.31

Data Set Number = 6

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.13	7.51	1.33	2.14	2.25	5.99	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	14.59	16.29	14.88	14.76	14.22	15.66	15.09	5.549E+04	4.425E+03	12.54
2	14.05	13.71	14.06	13.12	13.72	14.24	13.82	5.539E+04	4.965E+03	11.16
3	13.10	12.84	13.34	13.06	13.21	13.23	13.11	5.611E+04	5.440E+03	10.31

Data Set Number = 7

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.97	7.46	1.49	2.05	2.36	5.98	2.30

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.61	11.99	11.61	11.79	10.72	11.48	11.44	3.349E+04	3.758E+03	8.91
2	11.64	11.32	11.73	10.66	11.75	11.66	11.30	3.342E+04	3.870E+03	8.64
3	11.35	11.24	11.84	11.49	11.42	11.69	11.51	3.386E+04	3.886E+03	8.71

Data Set Number = 8

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.95	7.45	1.45	2.04	2.34	5.97	2.29

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.61	11.96	11.58	11.77	10.70	11.44	11.43	3.343E+04	3.754E+03	8.90
2	11.65	11.35	11.73	10.66	11.75	11.63	11.30	3.335E+04	3.856E+03	8.65
3	11.34	11.24	11.85	11.48	11.44	11.71	11.51	3.380E+04	3.873E+03	8.73

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.93	7.63	1.43	2.21	2.29	6.00	2.25

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.57	9.63	9.59	9.57	8.89	9.28	9.42	1.745E+04	2.464E+03	7.02
2	10.31	10.29	10.25	9.76	9.57	10.10	10.05	1.745E+04	2.320E+03	7.52
3	10.10	10.12	10.53	10.41	10.17	10.24	10.26	1.770E+04	2.327E+03	7.60

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.93	7.63	1.44	2.22	2.30	6.00	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.57	9.62	9.58	9.55	8.86	9.28	9.41	1.746E+04	2.493E+03	7.00
2	10.31	10.25	10.24	9.74	9.56	10.12	10.04	1.745E+04	2.325E+03	7.50
3	10.09	10.13	10.53	10.42	10.18	10.21	10.26	1.770E+04	2.331E+03	7.59

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.16	7.77	1.29	2.10	2.18	6.07	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.36	8.43	8.53	8.35	8.16	8.22	8.34	1.171E+04	1.924E+03	6.09
2	9.08	9.06	9.08	8.61	8.58	8.89	8.92	1.171E+04	1.793E+03	6.53
3	9.42	9.37	9.58	9.69	9.42	9.37	9.47	1.189E+04	1.709E+03	6.96

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.21	7.76	1.28	2.10	2.15	6.09	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.37	6.45	6.53	6.34	6.10	6.23	6.34	1.170E+04	1.920E+03	6.09
2	9.07	9.05	9.06	8.62	8.56	8.90	8.91	1.170E+04	1.789E+03	6.54
3	9.38	9.41	9.59	9.69	9.44	9.39	9.48	1.188E+04	1.702E+03	6.98

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.79	7.86	1.31	2.17	2.20	6.32	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.54	7.74	7.82	7.50	7.60	7.60	7.63	8.149E+03	1.524E+03	5.35
2	6.04	6.06	6.06	7.96	7.72	7.89	7.96	8.155E+03	1.471E+03	5.54
3	6.97	6.95	9.04	9.27	9.01	8.86	9.02	8.286E+03	1.279E+03	6.48

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.87	7.88	1.33	2.17	2.21	6.35	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.55	7.73	7.82	7.52	7.60	7.60	7.64	8.183E+03	1.530E+03	5.35
2	6.05	6.05	6.05	7.95	7.73	7.88	7.95	8.192E+03	1.480E+03	5.54
3	6.98	6.95	9.04	9.27	9.02	8.86	9.02	8.322E+03	1.287E+03	6.47

Data Set Number = 15

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.37	8.22	1.23	2.13	2.14	6.61	2.13			
Tube #	Wall 1	Wall 2	Temperatures (Deg C)			Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.29	6.59	6.58	6.23	6.50	6.53	6.45	5.179E+03	1.223E+03	4.23
2	6.82	6.84	6.89	6.91	6.69	6.78	6.82	5.192E+03	1.168E+03	4.48
3	8.38	8.34	8.35	8.60	8.42	8.27	8.39	5.286E+03	8.932E+02	5.92

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.40	8.28	1.24	2.14	2.13	6.64	2.13			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.29	6.59	6.59	6.23	6.52	6.53	6.46	5.167E+03	1.218E+03	4.24
2	6.84	6.87	6.92	6.93	6.72	6.80	6.84	5.179E+03	1.151E+03	4.50
3	8.37	8.33	8.39	8.61	8.40	8.29	8.40	5.272E+03	8.899E+02	5.92

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.64	9.40	1.26	2.21	2.12	7.10	2.16			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.13	5.56	5.51	5.08	5.52	5.52	5.39	2.890E+03	9.164E+02	3.15
2	5.80	5.83	6.15	6.11	6.05	6.08	6.00	2.907E+03	7.986E+02	3.64
3	7.72	7.75	7.77	7.88	7.81	7.74	7.78	2.964E+03	5.687E+02	5.29

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.65	9.47	1.27	2.23	2.14	7.13	2.18			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.17	5.58	5.53	5.11	5.55	5.55	5.41	2.891E+03	9.146E+02	3.16
2	5.82	5.86	6.18	6.14	6.09	6.11	6.03	2.906E+03	7.961E+02	3.65
3	7.75	7.78	7.78	7.88	7.81	7.75	7.79	2.961E+03	5.689E+02	5.28

Data Set Number = 19

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.75	9.82	1.29	2.31	2.18	7.29	2.25			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.26	4.68	4.56	4.23	4.59	4.58	4.47	1.353E+03	6.262E+02	2.16
2	5.25	5.25	5.53	5.50	5.42	5.46	5.40	1.366E+03	4.611E+02	2.95
3	6.95	7.08	6.87	7.03	7.13	6.89	6.99	1.396E+03	3.155E+02	4.43

Data Set Number = 20

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.76	9.86	1.30	2.32	2.21	7.30	2.26			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.28	4.59	4.56	4.27	4.61	4.58	4.48	1.357E+03	6.292E+02	2.16
2	5.27	5.27	5.52	5.51	5.44	5.47	5.41	1.370E+03	4.633E+02	2.95
3	6.98	7.11	6.91	7.06	7.14	6.90	7.02	1.400E+03	3.156E+02	4.44

NOTE: 20 X-Y pairs were stored in plot data file PDSMD59

Disk number = 12  
 File name: DSMDS9  
 This data set taken on 10/02/24 14:09:32

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.70	7.22	1.29	2.19	2.29	6.07	2.24			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.57	22.46	19.34	19.23	19.08	21.91	20.26	8.717E+04	4.976E+03	17.52
2	17.89	18.15	18.24	17.40	18.18	17.78	17.94	8.705E+04	5.778E+03	15.07
3	17.25	17.11	17.71	17.75	16.98	16.37	17.20	8.815E+04	6.214E+03	14.19
4	19.37	20.82	20.46	17.54	17.47	22.13	19.63	8.526E+04	5.165E+03	16.51

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.66	7.15	1.30	2.19	2.29	6.04	2.24			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.53	22.47	19.35	19.24	19.06	21.96	20.27	8.734E+04	4.985E+03	17.52
2	17.88	18.10	18.23	17.43	18.24	17.80	17.95	8.719E+04	5.786E+03	15.07
3	17.27	17.07	17.72	17.74	16.96	16.38	17.19	8.823E+04	6.222E+03	14.18
4	19.39	20.84	20.46	17.51	17.42	22.10	19.62	8.532E+04	5.173E+03	16.49

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.46	6.76	1.26	2.14	2.23	5.82	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.11	20.53	17.85	17.66	17.63	19.96	18.66	7.752E+04	4.839E+03	16.02
2	16.76	16.82	16.97	16.11	16.91	16.74	16.72	7.739E+04	5.547E+03	13.95
3	15.94	15.72	16.27	16.41	15.66	15.22	15.87	7.834E+04	6.041E+03	12.97
4	17.69	18.70	18.47	15.87	15.98	20.26	17.83	7.572E+04	5.112E+03	14.81

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.45	6.74	1.27	2.14	2.23	5.82	2.18			
Tube	Wall Temperatures (Deg C						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	18.10	20.69	17.94	17.88	17.79	20.06	18.74	7.785E+04	4.837E+03	16.10
2	16.75	16.83	16.98	16.17	16.90	16.76	16.73	7.774E+04	5.571E+03	13.95
3	15.92	15.68	16.21	16.41	15.65	15.23	15.85	7.671E+04	6.083E+03	12.94
4	17.70	18.65	18.47	15.62	15.93	20.13	17.78	7.611E+04	5.158E+03	14.76

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.27	7.21	1.34	2.15	2.25	5.94	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.10	18.77	15.19	15.19	14.57	16.13	15.48	5.733E+04	4.432E+02	12.94
2	14.35	14.17	14.59	13.66	14.14	14.51	14.23	5.721E+04	4.956E+02	11.54
3	13.10	13.09	13.37	13.39	13.11	13.06	13.19	5.793E+04	5.597E+02	10.37
4	15.33	15.61	15.46	13.53	14.05	17.27	15.21	5.601E+04	4.564E+02	12.27

Data Set Number = 6

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.27	7.25	1.33	2.15	2.25	5.95	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.05	16.67	15.11	15.12	14.67	15.97	15.43	5.646E+04	4.383E+03	12.88
2	14.28	14.02	14.50	13.54	14.02	14.44	14.13	5.636E+04	4.922E+03	11.45
3	13.03	12.98	13.26	13.28	13.02	12.98	13.09	5.707E+04	5.551E+03	10.28
4	15.23	15.51	15.38	13.43	13.95	17.17	15.11	5.519E+04	4.531E+03	12.18

Data Set Number = 7

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.66	7.25	1.39	2.12	2.22	5.76	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	11.41	12.13	11.65	11.68	10.28	11.61	11.46	3.477E+04	3.840E+03	9.05
2	11.22	10.89	11.17	10.28	10.37	11.25	10.86	3.470E+04	4.165E+03	8.33
3	10.54	10.23	11.01	10.85	10.67	11.09	10.73	3.518E+04	4.360E+03	8.07
4	13.25	13.17	13.15	11.77	12.25	14.52	13.02	3.402E+04	3.325E+03	10.23

Data Set Number = 8

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.62	7.25	1.38	2.12	2.23	5.75	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	11.43	12.11	11.64	11.70	10.23	11.58	11.45	3.462E+04	3.831E+03	9.04
2	11.20	10.91	11.18	10.27	10.37	11.25	10.86	3.455E+04	4.150E+03	8.33
3	10.53	10.23	10.99	10.84	10.64	11.08	10.72	3.502E+04	4.351E+03	8.05
4	13.23	13.13	13.12	11.77	12.23	14.46	12.99	3.388E+04	3.323E+03	10.20

Data Set Number = 9

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.59	7.29	1.41	2.17	2.24	5.76	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.41	9.67	9.48	9.42	8.71	9.32	9.33	1.829E+04	2.621E+03	6.98
2	9.34	9.26	9.42	9.12	8.85	9.44	9.24	1.828E+04	2.706E+03	6.75
3	9.42	9.32	9.71	9.83	9.57	9.70	9.59	1.854E+04	2.657E+03	6.98
4	11.47	11.55	11.44	10.55	10.94	12.34	11.38	1.792E+04	2.074E+03	8.64

Data Set Number = 10

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
8.60	7.30	1.41	2.17	2.25	5.77	2.21

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.44	9.68	9.46	9.44	8.67	9.23	9.34	1.833E+04	2.628E+03	6.97
2	9.33	9.25	9.43	9.07	8.69	9.46	9.24	1.831E+04	2.712E+03	6.75
3	9.42	9.34	9.67	9.86	9.56	9.72	9.60	1.857E+04	2.662E+03	6.98
4	11.51	11.55	11.42	10.57	10.93	12.36	11.39	1.795E+04	2.077E+03	8.64

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.64	7.40	1.34	2.13	2.17	5.79	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.28	8.56	8.46	8.27	8.07	8.33	8.33	1.266E+04	2.091E+03	6.06
2	8.48	8.55	8.64	8.45	8.23	8.59	8.49	1.266E+04	2.081E+03	6.09
3	8.56	8.67	8.88	8.97	8.87	8.84	8.80	1.285E+04	2.051E+03	6.27
4	10.74	10.91	10.69	9.89	10.18	11.48	10.65	1.241E+04	1.554E+03	7.99

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.67	7.40	1.34	2.13	2.16	5.80	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.27	8.58	8.49	8.26	8.04	8.35	8.33	1.261E+04	2.080E+03	6.06
2	8.50	8.55	8.64	8.44	8.24	8.62	8.50	1.261E+04	2.066E+03	6.10
3	8.55	8.69	8.85	8.99	8.84	8.80	8.78	1.280E+04	2.046E+03	6.26
4	10.74	10.90	10.66	9.93	10.19	11.49	10.65	1.237E+04	1.547E+03	8.00

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.12	7.46	1.30	2.14	2.17	5.96	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.34	7.66	7.55	7.31	7.30	7.51	7.45	8.829E+03	1.700E+03	5.19
2	7.63	7.66	7.77	7.69	7.44	7.68	7.64	8.833E+03	1.679E+03	5.26
3	7.58	7.97	7.98	7.89	8.01	7.91	7.87	8.980E+03	1.676E+03	5.36
4	10.01	10.31	10.02	9.36	9.58	10.70	10.00	8.675E+03	1.179E+03	7.36

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.17	7.47	1.30	2.14	2.16	5.99	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.35	7.70	7.58	7.32	7.34	7.54	7.47	8.850E+03	1.696E+03	5.22
2	7.64	7.69	7.79	7.74	7.47	7.70	7.67	8.855E+03	1.675E+03	5.29
3	7.59	7.90	7.99	7.92	8.03	7.93	7.89	9.004E+03	1.674E+03	5.38
4	10.04	10.32	10.02	9.37	9.57	10.65	9.99	8.698E+03	1.182E+03	7.35

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.77	7.69	1.28	2.15	2.17	6.24	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.28	6.63	6.53	6.25	6.44	6.55	6.45	5.618E+03	1.340E+03	4.19
2	6.56	6.62	6.72	6.64	6.38	6.62	6.57	5.631E+03	1.343E+03	4.19
3	6.54	6.78	6.95	6.78	6.66	6.88	6.80	5.733E+03	1.338E+03	4.29
4	9.44	9.45	9.44	8.76	8.91	9.72	9.30	5.532E+03	8.310E+02	6.66

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.82	7.68	1.29	2.15	2.18	6.26	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.28	6.60	6.52	6.24	6.42	6.53	6.43	5.623E+03	1.345E+03	4.18
2	6.56	6.60	6.70	6.61	6.36	6.50	6.56	5.639E+03	1.351E+03	4.17
3	6.51	6.75	6.95	6.72	6.84	6.85	6.77	5.742E+03	1.349E+03	4.26
4	9.46	9.48	9.46	8.74	8.85	9.72	9.28	5.540E+03	8.338E+02	6.64

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.15	8.38	1.32	2.21	2.18	6.62	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.23	5.57	5.47	5.19	5.42	5.52	5.41	3.216E+03	1.024E+03	3.14
2	5.76	5.81	5.80	5.78	5.62	5.67	5.74	3.233E+03	9.664E+02	3.35
3	5.83	6.01	6.26	5.98	6.06	6.18	6.05	3.295E+03	9.340E+02	3.53
4	8.54	8.48	8.58	8.00	8.08	8.66	8.39	3.176E+03	5.538E+02	5.74

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.18	8.53	1.33	2.22	2.18	6.68	2.21

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.26	5.57	5.48	5.20	5.50	5.52	5.42	3.139E+03	9.982E+02	3.15
2	5.80	5.85	5.83	5.82	5.64	5.68	5.77	3.156E+03	9.389E+02	3.36
3	5.85	6.02	6.29	6.01	6.08	6.21	6.08	3.220E+03	9.094E+02	3.54
4	8.57	8.52	8.61	8.04	8.11	8.70	8.42	3.103E+03	5.390E+02	5.76

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.35	9.16	1.36	2.22	2.21	6.96	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.34	4.62	4.53	4.32	4.55	4.61	4.49	1.541E+03	7.077E+02	2.18
2	5.07	5.10	5.04	5.06	4.88	4.95	5.03	1.556E+03	6.022E+02	2.59
3	5.42	5.49	5.66	5.50	5.50	5.61	5.53	1.589E+03	5.370E+02	2.96
4	7.35	7.23	7.29	7.02	7.04	7.36	7.23	1.530E+03	3.381E+02	4.53

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.37	9.21	1.35	2.22	2.20	6.98	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.29	4.58	4.50	4.29	4.50	4.57	4.46	1.541E+03	7.153E+02	2.15
2	5.03	5.05	4.99	5.02	4.88	4.91	4.98	1.553E+03	6.112E+02	2.54
3	5.39	5.45	5.60	5.47	5.48	5.57	5.49	1.588E+03	5.431E+02	2.92
4	7.32	7.21	7.27	6.97	7.01	7.34	7.20	1.531E+03	3.399E+02	4.50

NOTE 20 k-V pairs were stored in plot data file PD5M059

Disk number = 12  
File name: DSH060  
This data set taken on : 02/24/15 08 18

Data Set Number = 1

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	8.99	6.89	1.21	2.10	2.16	5.70	2.13			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	20.12	23.37	19.98	19.04	19.85	22.85	21.00	9.411E+04	5.135E+03	18.33
2	18.54	18.81	18.90	18.06	18.89	18.42	18.50	9.399E+04	5.947E+03	15.80
3	17.72	17.64	18.29	18.06	17.60	16.88	17.70	9.517E+04	6.447E+03	14.76
4	19.56	22.33	21.09	18.37	18.02	23.07	20.41	9.200E+04	5.299E+03	17.36
5	26.79	26.18	24.38	20.97	23.88	25.86	24.68	9.328E+04	4.340E+03	21.49

Data Set Number = 2

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	8.96	6.87	1.21	2.09	2.16	5.68	2.13			
Tube #	Wall 1	Wall 2	Temperatures (Deg C)			Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	20.12	23.38	20.05	19.85	19.89	22.86	9.429E+04	5.137E+03	18.36	
2	18.49	19.77	18.84	18.12	18.85	18.44	18.58	9.412E+04	5.962E+03	15.79
3	17.72	17.64	18.24	18.00	17.56	16.89	17.67	9.527E+04	6.463E+03	14.74
4	19.56	22.27	21.08	18.37	18.03	23.08	20.40	9.212E+04	5.308E+03	17.35
5	26.70	26.13	24.44	20.92	23.87	25.89	24.66	9.344E+04	4.351E+03	21.48

Data Set Number = 3

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	8.93	6.99	1.26	2.11	2.18	5.73	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.14	20.68	17.99	17.97	17.58	20.09	18.74	7.886E+04	4.889E+03	16.13
2	16.75	16.72	16.97	16.08	16.76	16.72	16.67	7.869E+04	5.648E+03	13.93
3	15.59	15.46	15.99	15.92	15.49	15.08	15.59	7.970E+04	6.268E+03	12.72
4	17.68	19.18	18.60	16.21	16.19	20.39	18.04	7.709E+04	5.121E+03	15.05
5	22.63	21.71	20.35	17.50	20.23	21.64	20.68	7.819E+04	4.455E+03	17.55

Data Set Number = 4

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	6.91	7.00	1.25	2.12	2.18	5.72	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.11	20.66	17.97	17.93	17.71	20.06	18.74	7.863E+04	4.876E+03	16.13
2	16.71	16.72	16.96	16.05	16.79	16.72	16.66	7.851E+04	5.641E+03	13.92
3	15.54	15.44	15.96	15.85	15.45	15.06	15.55	7.949E+04	6.272E+03	12.67
4	17.65	19.14	18.55	16.18	16.14	20.33	18.00	7.684E+04	5.120E+03	15.01
5	22.62	21.68	20.34	17.53	20.28	21.63	20.68	7.794E+04	4.440E+03	17.55

Data Set Number = 5

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	6.78	6.51	1.31	2.12	2.17	5.53	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	14.02	15.41	14.23	14.22	13.31	14.73	14.32	5.009E+04	4.224E+03	11.86
2	13.45	13.15	13.61	12.70	13.11	13.65	13.29	4.995E+04	4.675E+03	10.68
3	11.97	11.07	12.16	12.09	12.05	12.25	12.06	5.059E+04	5.415E+03	9.34
4	14.06	13.99	14.01	12.33	12.74	15.44	13.76	4.894E+04	4.483E+03	10.92
5	16.85	15.85	14.95	13.49	15.77	16.45	15.56	4.968E+04	3.949E+03	12.56

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.76	6.45	1.32	2.12	2.17	5.51	2.14

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	13.93	15.33	14.19	14.17	13.30	14.63	14.26	4.991E+04	4.229E+03	11.80
2	13.45	13.22	13.60	12.72	13.09	13.52	13.27	4.979E+04	4.662E+03	10.68
3	11.94	11.67	12.20	12.09	12.05	12.26	12.07	5.043E+04	5.393E+03	9.35
4	14.06	14.03	14.03	12.34	12.73	15.51	13.78	4.877E+04	4.455E+03	10.95
5	16.88	15.89	14.90	13.56	15.80	16.38	15.57	4.949E+04	3.928E+03	12.60

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.18	6.45	1.47	2.20	2.26	5.37	2.23

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	10.71	11.42	10.89	10.99	9.47	10.95	10.74	2.973E+04	3.582E+03	8.30
2	10.56	10.37	10.61	9.74	10.13	10.77	10.36	2.965E+04	3.809E+03	7.79
3	9.73	9.44	9.82	9.93	9.90	10.12	9.82	3.008E+04	4.224E+03	7.12
4	11.98	11.80	11.95	10.72	11.20	12.90	11.76	2.909E+04	3.256E+03	8.93
5	13.77	13.19	12.68	11.71	13.34	13.83	13.09	2.951E+04	2.913E+03	10.13

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.13	6.46	1.49	2.23	2.30	5.36	2.26

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	10.74	11.42	10.90	11.01	9.62	10.95	10.77	2.975E+04	3.583E+03	8.30
2	10.57	10.38	10.63	9.77	10.14	10.79	10.38	2.970E+04	3.818E+03	7.78
3	9.77	9.46	9.80	10.01	9.93	10.13	9.85	3.009E+04	4.229E+03	7.12
4	12.02	11.83	11.98	10.75	11.23	12.93	11.79	2.910E+04	3.257E+03	8.94
5	13.75	13.20	12.69	11.74	13.36	13.84	13.10	2.955E+04	2.923E+03	10.11

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.01	6.57	1.51	2.26	2.32	5.36	2.29

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	8.59	8.02	8.74	8.63	8.16	8.77	8.65	1.438E+04	2.309E+03	6.23
2	8.51	8.52	8.69	8.41	8.38	8.69	8.53	1.437E+04	2.404E+03	5.98
3	8.55	8.59	8.78	8.93	8.86	8.79	8.75	1.458E+04	2.404E+03	6.07
4	9.94	9.93	9.86	9.36	9.58	10.52	9.67	1.410E+04	1.998E+03	7.06
5	11.35	11.18	10.95	10.32	11.22	11.55	11.10	1.432E+04	1.755E+03	8.16

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.00	6.59	1.52	2.27	2.32	5.37	2.30

Tube #	Wall	Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	1	2	3	4	5	6				
1	8.59	8.99	8.74	8.64	8.09	9.76	8.63	1.441E+04	2.322E+03	6.21
2	8.51	8.46	8.71	8.39	8.41	8.71	8.53	1.441E+04	2.410E+03	5.98
3	8.55	8.60	8.79	8.95	8.87	8.81	8.76	1.462E+04	2.406E+03	6.07
4	9.93	9.97	9.89	9.38	9.60	10.51	9.85	1.414E+04	2.001E+03	7.07
5	11.30	11.15	10.92	10.33	11.21	11.56	11.08	1.435E+04	1.763E+03	8.14

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.17	6.62	1.42	2.18	2.28	5.40	2.23			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.62	7.95	7.70	7.62	7.33	7.80	7.67	1.000E+04	1.876E+03	5.33
2	7.73	7.78	7.95	7.70	7.69	7.88	7.79	1.000E+04	1.880E+03	5.32
3	7.97	7.98	8.09	8.30	8.19	8.06	8.10	1.016E+04	1.848E+03	5.50
4	8.68	8.82	8.70	8.45	8.58	9.21	8.74	9.824E+03	1.634E+03	6.01
5	10.45	10.46	10.22	9.72	10.31	10.68	10.31	9.971E+03	1.338E+03	7.45

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.22	6.64	1.43	2.18	2.27	5.43	2.23			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	7.64	7.94	7.70	7.63	7.33	7.79	7.67	1.002E+04	1.878E+03	5.34
2	7.74	7.80	7.95	7.75	7.69	7.89	7.80	1.003E+04	1.877E+03	5.34
3	7.97	8.01	8.07	8.31	8.20	8.09	8.11	1.018E+04	1.847E+03	5.51
4	8.72	8.84	8.77	8.44	8.58	9.23	8.76	9.844E+03	1.629E+03	6.04
5	10.49	10.48	10.22	9.68	10.25	10.68	10.30	9.990E+03	1.342E+03	7.45

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.57	6.70	1.35	2.16	2.29	5.54	2.22			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	6.88	7.14	6.89	6.86	6.71	7.06	6.92	6.993E+03	1.518E+03	4.61
2	7.06	7.14	7.27	7.05	7.05	7.20	7.14	7.004E+03	1.493E+03	4.69
3	7.35	7.29	7.47	7.58	7.42	7.40	7.42	7.121E+03	1.471E+03	4.84
4	7.63	7.78	7.66	7.60	7.67	8.04	7.73	6.881E+03	1.368E+03	5.03
5	9.76	9.85	9.63	9.16	9.54	10.00	9.66	6.983E+03	1.023E+03	6.83

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.62	6.73	1.35	2.15	2.29	5.57	2.22			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	6.87	7.18	6.87	6.85	6.72	7.08	6.93	7.021E+03	1.518E+03	4.61
2	7.07	7.14	7.32	7.04	7.09	7.19	7.14	7.009E+03	1.493E+03	4.70
3	7.28	7.27	7.46	7.60	7.44	7.40	7.42	7.130E+03	1.470E+03	4.85
4	7.65	7.71	7.69	7.54	7.67	8.07	7.72	6.888E+03	1.372E+03	5.02
5	9.75	9.85	9.64	9.18	9.55	9.98	9.66	6.988E+03	1.023E+03	6.83

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.17	6.87	1.30	2.18	2.23	5.79	2.21			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.69	5.98	5.73	5.66	5.69	5.94	5.78	3.994E+03	1.141E+03	3.50
2	5.98	5.02	6.16	5.95	6.09	6.11	6.06	4.009E+03	1.099E+03	3.65
3	6.49	6.32	6.55	6.66	6.39	6.49	6.49	4.084E+03	1.035E+03	3.95
4	6.56	6.65	6.64	6.63	6.68	7.02	6.74	3.943E+03	9.693E+02	4.07
5	6.70	6.85	6.74	6.42	6.61	6.95	6.71	3.999E+03	6.761E+02	5.92

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.19	6.96	1.31	2.18	2.23	5.82	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	5.69	5.97	5.71	5.67	5.66	5.94	5.77	3.988E+03	1.142E+03	3.49
2	6.00	6.05	6.13	6.00	6.09	6.11	6.06	4.003E+03	1.056E+03	3.65
3	6.47	6.33	6.59	6.64	6.39	6.53	6.49	4.077E+03	1.033E+03	3.95
4	6.55	6.86	6.62	6.68	6.73	6.99	6.74	3.936E+03	9.674E+02	4.07
5	6.69	6.86	6.75	6.84	6.54	6.95	6.69	3.992E+03	6.779E+02	5.89

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.51	7.65	1.26	2.16	2.24	6.14	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	4.61	4.87	4.69	4.60	4.71	4.86	4.72	2.002E+03	8.156E+02	2.45
2	5.05	5.08	5.11	5.10	5.17	5.14	5.11	2.015E+03	7.434E+02	2.71
3	5.63	5.62	5.79	5.74	5.65	5.72	5.69	2.058E+03	6.498E+02	3.17
4	6.08	6.14	6.15	6.10	6.14	6.25	6.14	1.984E+03	5.689E+02	3.49
5	7.40	7.56	7.58	7.17	7.28	7.68	7.45	2.013E+03	4.318E+02	4.66

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.54	7.76	1.26	2.17	2.26	6.19	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	4.63	4.88	4.71	4.61	4.73	4.88	4.74	1.994E+03	8.110E+02	2.46
2	5.06	5.09	5.12	5.11	5.17	5.15	5.12	2.008E+03	7.416E+02	2.71
3	5.65	5.63	5.79	5.75	5.67	5.75	5.71	2.051E+03	6.474E+02	3.17
4	6.06	6.13	6.14	6.13	6.17	6.23	6.14	1.977E+03	5.690E+02	3.48
5	7.43	7.58	7.62	7.20	7.32	7.74	7.48	2.005E+03	4.281E+02	4.68

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.85	8.64	1.28	2.26	2.30	6.56	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	4.18	4.25	4.17	4.09	4.20	4.25	4.18	1.136E+03	6.182E+02	1.84
2	4.55	4.56	4.70	4.64	4.68	4.68	4.64	1.148E+03	5.296E+02	2.17
3	5.37	5.32	5.27	5.46	5.35	5.24	5.34	1.174E+03	4.291E+02	2.74
4	6.09	6.06	6.15	5.60	5.83	6.10	6.02	1.132E+03	3.442E+02	3.29
5	6.54	6.66	6.70	6.29	6.39	6.74	6.56	1.148E+03	3.102E+02	3.70

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.86	8.71	1.27	2.23	2.27	6.61	2.25

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	4.08	4.25	4.14	4.06	4.18	4.25	4.16	1.136E+03	6.154E+02	1.85
2	4.51	4.53	4.67	4.62	4.69	4.65	4.61	1.149E+03	5.292E+02	2.17
3	5.35	5.28	5.24	5.45	5.31	5.23	5.31	1.175E+03	4.290E+02	2.74
4	6.07	6.05	6.13	5.78	5.82	6.18	6.00	1.131E+03	3.421E+02	3.31
5	6.53	6.64	6.69	6.27	6.36	6.74	6.54	1.148E+03	3.094E+02	3.71

NOTE 20 X-Y pairs were stored in plot data file PDSMD60

Disk number = 12  
 File name: DSM061  
 This data set taken on 02:24:20-17:35

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
4.97	4.25	1.32	2.29	2.14	3.51	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	20.42	23.74	20.79	20.27	20.48	23.43	21.51	8.630E+04	4.590E+03	18.80
2	19.96	20.03	20.58	19.59	20.01	19.83	20.00	8.619E+04	5.026E+03	17.15
3	20.18	21.09	20.16	20.31	21.30	19.31	20.39	8.725E+04	5.013E+03	17.41
4	24.82	25.16	25.99	21.87	21.57	26.08	24.25	8.437E+04	3.989E+03	21.15
5	31.16	31.04	32.68	28.52	31.07	33.59	31.34	8.554E+04	3.043E+03	28.11

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
4.92	4.23	1.34	2.31	2.26	3.50	2.28

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	20.44	23.81	21.00	20.40	20.46	23.46	21.59	8.624E+04	4.586E+03	18.80
2	19.97	20.19	20.40	19.55	19.97	19.86	19.99	8.612E+04	5.045E+03	17.07
3	20.27	20.73	19.98	20.34	21.05	19.12	20.25	8.722E+04	5.072E+03	17.20
4	24.73	24.97	25.75	21.98	21.74	26.05	24.20	8.435E+04	4.009E+03	21.04
5	31.17	30.77	32.87	28.52	31.17	33.65	31.36	8.547E+04	3.046E+03	28.06

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
4.79	4.11	1.30	2.27	2.22	3.40	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	18.49	21.51	19.79	18.45	18.23	21.07	19.42	7.598E+04	4.542E+03	16.73
2	18.17	18.04	19.55	17.45	17.94	18.06	18.04	7.595E+04	4.987E+03	15.21
3	17.46	17.87	17.81	17.45	16.38	17.29	17.72	7.680E+04	5.204E+03	14.76
4	19.55	19.94	20.51	17.79	17.60	21.30	19.45	7.431E+04	4.538E+03	16.37
5	23.84	23.32	22.59	20.34	22.64	23.82	22.76	7.533E+04	3.854E+03	19.55

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
4.75	4.03	1.31	2.29	2.24	3.40	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	18.62	21.53	19.93	18.61	18.33	21.08	19.50	7.603E+04	4.527E+03	16.75
2	18.22	18.14	18.41	17.44	17.98	18.16	18.05	7.593E+04	4.990E+03	15.21
3	17.52	17.95	17.83	17.62	18.31	17.30	17.76	7.689E+04	5.199E+03	14.79
4	19.62	19.98	20.59	17.90	17.70	21.21	19.50	7.437E+04	4.531E+03	16.41
5	23.82	23.30	22.62	20.46	22.72	23.86	22.80	7.537E+04	3.851E+03	19.57

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
4.93	4.26	1.23	2.12	2.13	3.47	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	1	2	3	4	5	6				
1	14.79	16.42	14.82	14.79	14.25	15.82	15.15	5.554E+04	4.380E+03	12.68
2	14.52	14.35	14.77	13.81	14.20	14.36	14.33	5.543E+04	4.722E+03	11.74
3	12.84	12.87	13.18	13.09	12.98	12.98	12.99	5.615E+04	5.474E+03	10.26
4	14.76	14.70	15.01	13.11	13.27	16.03	14.48	5.433E+04	4.670E+03	11.63
5	17.99	17.20	15.86	14.81	16.07	17.18	16.65	5.508E+04	4.030E+03	13.67

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
4.96	4.27	1.22	2.12	2.13	3.48	2.12

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	1	2	3	4	5	6				
1	14.75	16.48	14.83	14.76	14.16	15.86	15.14	5.549E+04	4.378E+03	12.68
2	14.50	14.33	14.80	13.85	14.18	14.39	14.34	5.538E+04	4.714E+03	11.75
3	12.82	12.90	13.17	13.06	12.97	12.96	12.98	5.610E+04	5.471E+03	10.25
4	14.77	14.71	15.01	13.07	13.25	16.04	14.48	5.428E+04	4.666E+03	11.63
5	18.03	17.25	15.87	14.81	16.98	17.17	16.67	5.504E+04	4.020E+03	13.69

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.52	4.77	1.39	2.12	2.13	3.89	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	1	2	3	4	5	6				
1	10.84	12.20	11.38	10.96	10.66	11.70	11.29	3.340E+04	3.740E+03	8.93
2	10.60	10.47	10.82	10.14	10.10	10.66	10.46	3.335E+04	4.182E+03	7.98
3	10.01	9.71	9.86	10.20	10.19	10.18	10.02	3.380E+04	4.569E+03	7.40
4	11.71	11.33	11.49	10.57	10.78	12.31	11.37	3.270E+04	3.793E+03	8.62
5	14.24	13.68	12.71	11.95	12.80	12.73	13.32	3.318E+04	3.176E+03	10.44

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.50	4.81	1.41	2.12	2.12	3.91	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	1	2	3	4	5	6				
1	10.85	12.26	11.40	10.97	10.69	11.79	11.31	3.344E+04	3.735E+03	8.95
2	10.60	10.50	10.86	10.17	10.13	10.68	10.49	3.338E+04	4.172E+03	8.00
3	10.02	9.72	9.98	10.22	10.17	10.21	10.04	3.383E+04	4.560E+03	7.42
4	11.72	11.34	11.51	10.60	10.80	12.25	11.39	3.273E+04	3.785E+03	8.65
5	14.22	13.63	12.72	11.98	12.82	12.73	13.31	3.320E+04	3.180E+03	10.44

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.13	6.13	1.46	2.12	2.18	4.57	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	1	2	3	4	5	6				
1	7.88	8.95	8.32	7.99	7.58	8.65	8.23	1.798E+04	3.048E+03	5.90
2	8.04	7.98	8.23	7.84	7.87	8.21	7.99	1.797E+04	3.245E+03	5.54
3	8.18	8.07	8.19	8.48	8.78	8.32	8.27	1.823E+04	3.208E+03	5.68
4	9.27	9.09	9.04	8.82	8.78	9.66	9.12	1.763E+04	2.750E+03	6.41
5	11.62	11.74	11.16	10.73	10.80	10.79	11.46	1.788E+04	2.074E+03	8.62

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.15	6.17	1.47	2.18	2.18	4.60	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.88	9.04	8.33	7.97	7.63	8.75	8.27	1.797E+04	3.026E+03	5.94
2	8.05	8.01	8.24	7.85	7.65	8.20	8.00	1.797E+04	3.241E+03	5.54
3	8.17	8.08	8.19	8.46	8.38	8.33	8.27	1.823E+04	3.208E+03	5.68
4	9.28	9.05	9.07	8.84	8.86	9.66	9.13	1.762E+04	2.748E+03	6.41
5	11.87	11.84	11.16	10.70	11.51	11.75	11.47	1.787E+04	2.072E+03	8.63

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.98	5.14	1.42	2.13	2.13	4.18	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.85	7.60	7.14	6.87	6.70	7.40	7.09	1.224E+04	2.527E+03	4.84
2	6.98	6.99	7.09	6.85	6.74	7.09	6.96	1.225E+04	2.675E+03	4.58
3	7.34	7.28	7.48	7.58	7.49	7.48	7.44	1.244E+04	2.522E+03	4.93
4	8.39	8.35	8.24	8.15	8.18	8.76	8.35	1.203E+04	2.106E+03	5.71
5	10.73	10.86	10.28	9.95	10.41	10.75	10.50	1.219E+04	1.576E+03	7.73

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.95	5.12	1.44	2.16	2.15	4.17	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.88	7.68	7.19	6.90	6.73	7.49	7.14	1.225E+04	2.515E+03	4.87
2	7.02	7.02	7.12	6.89	6.76	7.12	6.99	1.226E+04	2.674E+03	4.58
3	7.36	7.31	7.49	7.63	7.52	7.51	7.47	1.245E+04	2.521E+03	4.94
4	8.44	8.39	8.22	8.20	8.20	8.79	8.39	1.203E+04	2.098E+03	5.73
5	10.65	10.81	10.28	10.00	10.40	10.68	10.47	1.220E+04	1.589E+03	7.68

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.89	5.08	1.42	2.14	2.16	4.13	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.05	6.61	6.23	6.05	5.95	6.49	6.23	8.530E+03	2.143E+03	3.98
2	6.31	6.36	6.40	6.22	6.19	6.39	6.31	8.544E+03	2.171E+03	3.94
3	6.95	6.87	6.99	7.17	6.95	6.95	6.99	8.681E+03	1.938E+03	4.48
4	7.82	7.99	7.62	7.58	7.59	8.29	7.85	8.387E+03	1.609E+03	5.21
5	9.33	9.54	9.17	8.95	9.18	9.47	9.27	8.510E+03	1.307E+03	6.51

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.87	5.07	1.40	2.12	2.14	4.11	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.05	6.57	6.23	6.05	5.95	6.44	6.22	8.523E+03	2.140E+03	3.98
2	6.34	6.37	6.39	6.22	6.19	6.38	6.32	8.533E+03	2.158E+03	3.95
3	6.94	6.87	6.95	7.13	6.97	6.97	6.98	8.675E+03	1.934E+03	4.48
4	7.83	7.98	7.78	7.59	7.61	8.26	7.84	8.384E+03	1.607E+03	5.22
5	9.41	9.55	9.14	8.95	9.19	9.45	9.28	8.501E+03	1.301E+03	6.53

Data Set Number = 15

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	6.00	5.04	1.39	2.18	2.23	4.14	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.47	5.83	5.52	5.48	5.37	5.77	5.57	5.541E+03	1.690E+03	3.28
2	5.83	5.89	5.88	5.78	5.78	5.90	5.84	5.554E+03	1.624E+03	3.42
3	6.46	6.42	6.47	6.64	6.48	6.43	6.48	5.657E+03	1.439E+03	3.93
4	7.26	7.40	7.29	6.95	6.97	7.59	7.24	5.459E+03	1.197E+03	4.56
5	7.99	8.17	8.01	7.83	7.97	8.23	8.03	5.538E+03	1.060E+03	5.22

Data Set Number = 16

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	6.02	5.04	1.40	2.20	2.23	4.15	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.48	5.85	5.55	5.48	5.38	5.79	5.59	5.524E+03	1.680E+03	3.29
2	5.85	5.89	5.93	5.82	5.78	5.93	5.87	5.539E+03	1.611E+03	3.44
3	6.50	6.46	6.47	6.68	6.53	6.44	6.51	5.642E+03	1.426E+03	3.96
4	7.31	7.45	7.35	7.04	7.03	7.68	7.31	5.447E+03	1.178E+03	4.62
5	8.08	8.30	8.17	7.93	8.09	8.38	8.16	5.522E+03	1.033E+03	5.34

Data Set Number = 17

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	6.31	5.12	1.22	2.15	2.15	4.22	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.66	4.91	4.70	4.67	4.65	4.86	4.74	3.346E+03	1.330E+03	2.52
2	4.97	5.01	5.01	4.95	4.99	5.05	5.00	3.362E+03	1.273E+03	2.64
3	5.55	5.49	5.52	5.69	5.52	5.49	5.54	3.425E+03	1.119E+03	3.06
4	6.15	6.18	6.21	5.98	6.01	6.34	6.14	3.307E+03	9.365E+02	3.53
5	6.58	6.72	6.66	6.44	6.54	6.79	6.62	3.354E+03	8.649E+02	3.88

Data Set Number = 18

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav			
	6.35	5.13	1.21	2.12	2.14	4.23	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.65	4.89	4.69	4.68	4.64	4.85	4.73	3.347E+03	1.324E+03	2.53
2	4.94	4.99	5.01	4.94	4.99	5.04	4.98	3.366E+03	1.271E+03	2.65
3	5.54	5.47	5.52	5.67	5.50	5.47	5.53	3.430E+03	1.119E+03	3.07
4	6.13	6.18	6.18	5.98	6.02	6.33	6.13	3.309E+03	9.342E+02	3.54
5	6.59	6.74	6.63	6.48	6.56	6.74	6.62	3.357E+03	8.604E+02	3.90

Data Set Number = 19

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dev			
	7.29	5.40	1.17	2.16	2.11	4.62	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.85	4.02	3.85	3.84	3.89	3.99	3.90	1.580E+03	9.249E+02	1.71
2	4.19	4.21	4.16	4.12	4.19	4.20	4.18	1.595E+03	8.599E+02	1.85
3	4.67	4.58	4.64	4.76	4.61	4.62	4.65	1.629E+03	7.433E+02	2.19
4	5.08	5.05	5.13	4.99	5.00	5.16	5.07	1.570E+03	6.313E+02	2.49
5	5.34	5.47	5.47	5.30	5.35	5.53	5.41	1.593E+03	5.904E+02	2.70

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
7.36	5.42	1.16	2.14	2.15	4.65	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	3.84	3.99	3.85	3.84	3.85	3.97	3.89	1.582E+03	9.404E+02	1.68
2	4.16	4.20	4.17	4.13	4.18	4.23	4.18	1.594E+03	8.658E+02	1.84
3	4.68	4.58	4.61	4.76	4.60	4.60	4.64	1.632E+03	7.517E+02	2.17
4	5.07	5.06	5.12	4.94	4.97	5.18	5.06	1.573E+03	6.390E+02	2.46
5	5.34	5.45	5.48	5.29	5.35	5.57	5.41	1.593E+03	5.925E+02	2.69

NOTE: 20 X-Y pairs were stored in plot data file PDSM061

Dist number = 12  
File name: DSDM062  
This data set taken on: 02-24-19:11:46

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.63	4.98	1.84	2.39	2.38	4.15	2.38

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	13.72	15.65	14.31	13.88	13.26	14.98	14.30	4.820E+04	4.152E+03	11.61
2	13.31	13.19	13.74	12.91	13.18	13.55	13.31	4.811E+04	4.584E+03	10.50
3	12.08	11.99	12.26	12.28	12.22	12.25	12.18	4.873E+04	5.280E+03	9.23
4	13.86	13.59	14.00	12.31	12.53	14.90	13.53	4.712E+04	4.503E+03	10.46
5	16.17	15.38	14.31	13.48	15.43	15.60	15.05	4.782E+04	4.033E+03	11.86

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.62	4.87	1.82	2.39	2.38	4.07	2.39

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	13.75	15.60	14.32	13.69	13.37	14.95	14.31	4.824E+04	4.152E+03	11.62
2	13.33	13.21	13.76	12.90	13.21	13.60	13.33	4.814E+04	4.580E+03	10.51
3	12.10	12.01	12.28	12.32	12.24	12.28	12.21	4.876E+04	5.271E+03	9.25
4	13.88	13.63	14.02	12.34	12.56	14.93	13.56	4.715E+04	4.497E+03	10.49
5	16.20	15.42	14.36	13.51	15.46	15.63	15.09	4.785E+04	4.027E+03	11.88

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.62	5.04	1.26	2.16	2.15	3.97	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)					
1	2	3	4	5	6					
1	10.97	12.50	11.57	11.12	10.81	12.01	11.50	3.197E+04	3.507E+03	9.12
2	10.71	10.62	10.99	10.34	10.28	10.90	10.64	3.193E+04	3.928E+03	8.13
3	10.12	9.86	10.09	10.41	10.30	10.29	10.19	3.237E+04	4.295E+03	7.54
4	11.60	11.21	11.49	10.53	10.67	12.16	11.28	3.129E+04	3.676E+03	8.51
5	13.29	12.89	12.16	11.60	13.01	13.10	12.67	3.176E+04	3.248E+03	9.78

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.61	5.00	1.22	2.13	2.12	3.94	2.13

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	10.96	12.40	11.52	11.07	10.69	11.94	11.43	3.201E+04	3.525E+03	9.08
2	10.66	10.55	10.95	10.31	10.19	10.85	10.58	3.197E+04	3.943E+03	8.11
3	10.09	9.80	10.04	10.37	10.24	10.25	10.13	3.239E+04	4.304E+03	7.52
4	11.57	11.17	11.47	10.48	10.66	12.14	11.25	3.129E+04	3.674E+03	8.52
5	13.26	12.83	12.12	11.57	12.96	13.09	12.64	3.178E+04	3.250E+03	9.78

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.42	5.67	1.43	2.25	2.23	4.51	2.24

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	7.95	9.01	8.41	7.97	7.95	8.73	8.34	1.654E+04	2.776E+03	5.96
2	7.87	7.85	8.17	7.83	7.65	8.14	7.92	1.654E+04	3.058E+03	5.41
3	8.11	8.14	8.19	8.45	8.39	8.22	8.25	1.678E+04	2.989E+03	5.61
4	9.02	8.74	8.82	8.64	8.62	9.31	8.86	1.623E+04	2.663E+03	6.09
5	10.93	11.02	10.60	10.38	10.90	11.12	10.83	1.646E+04	2.075E+03	7.93

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.44	5.70	1.44	2.26	2.24	4.53	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	7.96	9.06	8.43	7.99	7.95	8.77	8.36	1.653E+04	2.768E+03	5.97
2	7.87	7.86	8.19	7.85	7.71	8.18	7.94	1.652E+04	3.047E+03	5.42
3	8.15	8.16	8.16	8.48	8.41	8.23	8.27	1.677E+04	2.985E+03	5.62
4	9.02	8.74	8.89	8.67	8.64	9.31	8.88	1.623E+04	2.659E+03	6.10
5	10.93	11.02	10.60	10.43	10.93	11.10	10.83	1.644E+04	2.075E+03	7.92

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.52	6.74	1.39	2.13	2.11	5.21	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	6.28	7.05	6.64	6.31	6.28	6.86	6.57	1.120E+04	2.578E+03	4.34
2	6.49	6.49	6.68	6.46	6.31	6.62	6.51	1.120E+04	2.701E+03	4.15
3	6.88	7.00	7.00	7.17	7.17	7.00	7.04	1.137E+04	2.501E+03	4.55
4	7.76	7.49	7.68	7.51	7.53	7.93	7.65	1.100E+04	2.185E+03	5.04
5	9.72	9.83	9.39	9.04	9.32	9.69	9.50	1.116E+04	1.653E+03	6.75

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.56	6.77	1.39	2.13	2.13	5.25	2.13

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	6.29	7.04	6.61	6.30	6.24	6.83	6.55	1.121E+04	2.602E+03	4.31
2	6.51	6.50	6.69	6.48	6.26	6.61	6.51	1.121E+04	2.710E+03	4.14
3	6.90	7.00	7.03	7.19	7.16	7.02	7.05	1.139E+04	2.504E+03	4.55
4	7.75	7.52	7.67	7.54	7.52	7.95	7.66	1.101E+04	2.189E+03	5.03
5	9.67	9.81	9.32	8.96	9.27	9.65	9.45	1.116E+04	1.669E+03	6.69

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.63	6.22	1.44	2.22	2.18	5.10	2.20			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	5.64	6.31	5.97	5.63	5.74	6.18	5.91	8.105E+03	2.244E+03	3.61
2	5.92	5.96	6.13	5.98	5.87	6.09	5.99	8.118E+03	2.278E+03	3.56
3	6.51	6.59	6.58	6.75	6.69	6.57	6.61	8.254E+03	2.035E+03	4.06
4	7.36	7.28	7.33	7.17	7.18	7.59	7.32	7.978E+03	1.722E+03	4.63
5	9.24	9.44	9.05	8.31	8.61	9.38	9.01	8.089E+03	1.307E+03	6.19

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.66	6.22	1.45	2.21	2.18	5.11	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.64	6.30	5.99	5.65	5.77	6.17	5.92	8.085E+03	2.230E+03	3.63
2	5.96	5.96	6.14	6.00	5.92	6.10	6.01	8.095E+03	2.256E+03	3.59
3	6.50	6.57	6.56	6.73	6.67	6.53	6.59	8.233E+03	2.038E+03	4.04
4	7.33	7.25	7.29	7.14	7.14	7.57	7.29	7.958E+03	1.728E+03	4.61
5	9.24	9.42	9.05	8.31	8.59	9.39	9.00	8.064E+03	1.303E+03	6.19

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.12	6.06	1.26	2.11	2.09	4.81	2.10			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.81	5.55	5.17	4.81	5.02	5.50	5.14	5.210E+03	1.759E+03	2.96
2	5.23	5.24	5.62	5.47	5.58	5.66	5.47	5.228E+03	1.657E+03	3.18
3	6.17	6.05	5.85	6.34	6.09	5.82	6.05	5.321E+03	1.473E+03	3.61
4	6.71	6.82	6.74	6.39	6.39	7.01	6.68	5.140E+03	1.251E+03	4.11
5	7.87	8.03	7.63	7.18	7.40	7.98	7.72	5.211E+03	1.039E+03	5.02

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.12	6.09	1.26	2.12	2.10	4.82	2.11			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.81	5.53	5.16	4.81	5.01	5.49	5.13	5.214E+03	1.774E+03	2.94
2	5.24	5.26	5.61	5.47	5.57	5.66	5.47	5.229E+03	1.663E+03	3.14
3	6.17	5.07	5.86	6.37	6.18	5.85	6.09	5.322E+03	1.467E+03	3.63
4	6.78	6.84	6.80	6.41	6.43	7.02	6.71	5.143E+03	1.245E+03	4.13
5	7.84	8.00	7.83	7.23	7.42	8.01	7.72	5.214E+03	1.040E+03	5.01

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.07	6.25	1.21	2.16	2.25	4.84	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.25	4.94	4.52	4.24	4.47	4.90	4.55	2.946E+03	1.293E+03	2.28
2	4.62	4.67	5.09	4.92	5.13	5.14	4.92	2.962E+03	1.177E+03	2.52
3	5.71	5.36	5.11	5.92	5.44	5.09	5.43	3.023E+03	1.045E+03	2.89
4	5.86	6.05	5.92	5.58	5.60	6.14	5.87	2.915E+03	9.103E+02	3.20
5	6.51	6.62	6.50	6.13	6.25	6.64	6.44	2.955E+03	6.098E+02	3.65

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.08	6.27	1.19	2.13	2.24	4.85	2.19

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	4.20	4.96	4.50	4.21	4.47	4.94	4.55	2.946E+03	1.289E+03	2.29
2	4.60	4.61	5.10	4.91	5.11	5.15	4.91	2.960E+03	1.172E+03	2.53
3	5.73	5.37	5.08	5.84	5.44	5.06	5.42	3.022E+03	1.042E+03	2.90
4	5.89	6.11	5.94	5.54	5.56	6.26	5.88	2.917E+03	9.013E+02	3.24
5	6.57	6.71	6.50	6.10	6.32	6.67	6.46	2.955E+03	8.016E+02	3.69

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.21	6.47	1.13	2.13	2.16	4.94	2.14

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.65	4.09	4.07	3.64	4.05	3.99	3.92	1.368E+03	8.009E+02	1.71
2	3.94	3.93	4.59	4.60	4.23	4.16	4.24	1.383E+03	7.254E+02	1.91
3	4.42	4.75	4.12	4.54	4.78	4.11	4.45	1.413E+03	7.125E+02	1.98
4	4.69	4.46	4.72	4.18	4.19	4.63	4.48	1.361E+03	7.223E+02	1.88
5	4.61	4.69	4.66	4.26	4.36	4.75	4.56	1.381E+03	7.537E+02	1.83

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.21	6.47	1.10	2.11	2.09	4.93	2.10

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.46	3.89	3.93	3.43	3.84	3.86	3.75	1.377E+03	8.683E+02	1.59
2	3.72	3.72	4.44	4.43	4.19	4.26	4.12	1.389E+03	7.589E+02	1.83
3	4.48	4.55	3.89	4.56	4.65	3.90	4.34	1.422E+03	7.441E+02	1.91
4	4.57	4.51	4.61	4.08	4.10	4.67	4.43	1.372E+03	7.327E+02	1.87
5	4.63	4.73	4.63	4.26	4.30	4.74	4.55	1.389E+03	7.426E+02	1.87

NOTE: 16 X-Y pairs were stored in plot data file PDSMD62

Disk number = 13

File name: DSD62

This data set taken on 03 02:12:42:10

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.48	14.08	.64	2.10	2.28	9.74	2.18

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	26.47	31.96	28.56	26.86	28.84	31.36	28.77	8.617E+04	3.304E+03	26.08

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.48	14.13	.64	2.10	2.28	9.75	2.20

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	26.45	31.99	28.56	26.81	28.80	31.50	28.81	8.621E+04	3.303E+03	26.10

Data Set Number = 3

Tv1	Tv2	Tv3	Ttd1	Ttd2	Twav	Tldev
14.58	14.13	.85	2.16	2.35	9.85	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	22.98 25.69 23.37 22.87 22.95 25.18 23.83		7.535E+04	3.567E+03	21.12

Data Set Number = 4

Tv1	Tv2	Tv3	Ttd1	Ttd2	Twav	Tldev
14.59	14.09	.87	2.18	2.38	9.85	2.28

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	22.98 25.77 23.45 22.95 23.05 25.37 23.93		7.507E+04	3.541E+03	21.20

Data Set Number = 5

Tv1	Tv2	Tv3	Ttd1	Ttd2	Twav	Tldev
14.72	14.03	1.00	2.20	2.35	9.92	2.28

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	20.88 20.54 20.16 20.38 19.90 20.05 20.02		5.585E+04	3.211E+03	17.40

Data Set Number = 6

Tv1	Tv2	Tv3	Ttd1	Ttd2	Twav	Tldev
14.73	14.03	1.02	2.20	2.38	9.93	2.29

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	20.13 20.57 20.20 20.41 19.95 20.07 20.05		5.584E+04	3.207E+03	17.41

Data Set Number = 7

Tv1	Tv2	Tv3	Ttd1	Ttd2	Twav	Tldev
14.86	14.19	1.02	2.24	2.29	10.02	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	17.42 17.22 17.90 17.60 17.11 16.81 17.35		3.400E+04	2.289E+03	14.86

Data Set Number = 8

Tv1	Tv2	Tv3	Ttd1	Ttd2	Twav	Tldev
14.90	14.21	1.02	2.23	2.30	10.03	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	17.44 17.34 17.90 17.64 17.10 16.76 17.36		3.401E+04	2.289E+03	14.86

Data Set Number = 9

Tv1	Tv2	Tv3	Ttd1	Ttd2	Twav	Tldev
15.57	14.60	.85	2.19	2.12	10.35	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	13.60 14.01 14.21 10.00 14.08 12.42 13.91		1.795E+04	1.546E+03	11.51

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.61	14.65	.87	2.16	2.11	10.38	2.14			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	13.88	14.03	14.34	13.86	14.09	13.46	13.94	1.793E+04	1.539E+03	11.65

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.89	15.16	.94	2.22	2.18	10.66	2.20			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	12.58	12.46	13.02	12.63	12.79	11.98	12.66	1.233E+04	1.205E+03	10.23

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.90	15.19	.95	2.23	2.19	10.68	2.21			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	12.68	12.49	12.03	12.66	12.79	11.99	12.61	1.229E+04	1.196E+03	10.27

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.95	15.35	.96	2.29	2.19	10.75	2.24			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	11.03	11.10	11.80	10.98	11.63	10.71	11.21	8.434E+03	9.508E+02	8.87

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.96	15.36	.96	2.28	2.19	10.76	2.24			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	11.15	11.07	11.81	11.12	11.62	10.70	11.25	8.457E+03	9.497E+02	8.90

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.93	15.37	.91	2.33	2.18	10.74	2.26			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	10.10	9.81	10.42	10.10	10.33	9.50	10.05	5.352E+03	6.950E+02	7.70

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.90	15.37	.90	2.33	2.18	10.73	2.26			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	10.07	9.89	10.43	10.07	10.38	9.57	10.07	5.366E+03	6.946E+02	7.73

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.88	15.33	.79	2.32	2.22	10.67	2.27

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetatb
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.96	9.58	9.27	9.97	9.24	9.33	8.89	2.955E+03	4.510E+02	6.55

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.88	15.34	.77	2.33	2.21	10.65	2.27

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetatb
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.96	9.56	9.27	9.00	9.19	9.31	8.89	2.954E+03	4.531E+02	6.54

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.88	15.25	.57	2.32	2.08	10.54	2.20

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetatb
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.79	7.05	7.35	5.80	7.35	6.94	7.05	1.359E+03	2.943E+02	4.78

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.78	15.22	.57	2.31	2.07	10.53	2.19

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetatb
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.81	7.04	7.40	5.61	7.40	6.94	7.07	1.367E+03	2.944E+02	4.81

NOTE 20 x-y pairs were stored in plot data file POSM053

Dist number = 13

File name DSM064

This data set taken on 03 02 14 26 40

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.85	12.53	.85	2.15	2.32	9.06	2.24

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetatb
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	25.25	29.17	25.80	24.76	25.82	26.74	26.61	9.140E+04	3.834E+03	23.84
2	26.48	25.66	29.79	26.87	29.31	29.44	29.08	9.132E+04	3.466E+03	26.18

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.79	12.50	.85	2.15	2.32	9.05	2.24

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetatb
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	25.46	29.43	26.05	24.92	25.91	26.80	26.80	9.194E+04	3.828E+03	24.82
2	26.60	26.67	30.04	26.99	29.95	29.67	29.29	9.173E+04	3.477E+03	26.36

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.30	11.27	.95	2.14	2.28	8.84	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	21.45	24.46	22.14	21.50	21.41	23.99	22.49	7.852E+04	3.962E+03	19.82
2	24.07	23.71	25.10	23.49	24.30	25.13	24.30	7.833E+04	3.644E+03	21.50

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.32	11.19	.95	2.13	2.28	8.82	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	21.45	24.42	22.08	21.51	21.50	24.00	22.49	7.853E+04	3.962E+03	19.82
2	24.03	23.71	25.12	23.48	24.26	25.10	24.28	7.834E+04	3.646E+03	21.48

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.49	11.96	1.09	2.17	2.22	9.18	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	15.59	17.49	16.62	16.18	14.62	16.89	16.23	4.915E+04	3.582E+03	13.72
2	18.93	18.36	19.25	18.12	18.92	19.84	18.90	4.904E+04	3.015E+03	16.27

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.50	11.99	1.09	2.17	2.22	9.19	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	15.59	17.47	16.63	16.19	14.58	16.86	16.22	4.910E+04	3.580E+03	13.71
2	18.96	18.42	19.12	18.14	18.76	19.64	18.84	4.898E+04	3.023E+03	16.21

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.53	12.11	1.17	2.28	2.27	9.27	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	13.35	14.34	14.05	13.70	12.60	13.79	13.67	2.972E+04	2.658E+03	11.18
2	16.50	16.34	16.60	15.95	16.56	17.11	16.51	2.966E+04	2.135E+03	13.89

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.54	12.08	1.18	2.28	2.28	9.27	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	13.29	14.38	14.07	13.65	12.61	13.78	13.66	2.959E+04	2.659E+03	11.17
2	16.53	16.31	16.56	15.80	16.59	17.13	16.51	2.964E+04	2.135E+03	13.88

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.44	12.85	.98	2.22	2.12	9.42	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	10.23 11.15 10.78 10.31 10.31 10.81	10.60	1.414E+04	1.703E+03	8.30
2	13.12 13.14 12.83 12.63 12.68 12.96	12.89	1.413E+04	1.350E+03	10.47

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.43	12.93	.99	2.22	2.11	9.45	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	10.20 11.16 10.80 10.30 10.40 10.81	10.61	1.418E+04	1.704E+03	8.32
2	13.10 13.15 12.91 12.86 12.67 12.95	12.94	1.416E+04	1.347E+03	10.51

Data Set Number = 11

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.31	13.46	.94	2.24	2.11	9.57	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	8.89 9.79 9.30 8.84 9.07 9.55	9.24	9.890E+03	1.421E+03	6.96
2	12.31 12.36 11.55 11.52 11.23 11.43	11.73	9.883E+03	1.060E+03	9.32

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.30	13.47	.93	2.24	2.10	9.57	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	8.89 9.79 9.25 8.84 8.98 9.54	9.22	9.894E+03	1.426E+03	6.94
2	12.56 12.54 11.50 11.40 11.27 11.45	11.60	9.890E+03	1.052E+03	9.40

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.21	13.46	.96	2.31	2.17	9.55	2.24

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	7.73 8.52 8.05 7.67 7.97 8.34	8.05	6.677E+03	1.168E+03	5.72
2	11.31 11.35 10.76 10.72 10.24 10.42	10.80	6.683E+03	8.010E+02	8.34

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.20	13.46	1.00	2.32	2.18	9.55	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	7.78 8.52 8.12 7.73 7.99 8.34	8.08	6.662E+03	1.162E+03	5.73
2	11.31 11.35 10.75 10.75 10.27 10.40	10.82	6.666E+03	7.991E+02	8.34

Data Set Number = 15

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.11	13.43	1.00	2.35	2.28	9.52	2.32

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.40	6.97	6.65	6.36	6.69	6.87	6.66	3.842E+03	9.011E+02	4.26
2	9.70	9.70	9.64	9.56	9.17	9.42	9.53	3.852E+03	5.498E+02	7.01

Data Set Number = 16

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.11	13.43	1.01	2.36	2.29	9.52	2.32

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.45	6.99	6.67	6.39	6.69	6.88	6.68	3.858E+03	9.021E+02	4.28
2	9.70	9.72	9.64	9.55	9.28	9.43	9.55	3.870E+03	5.510E+02	7.02

Data Set Number = 17

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.04	13.39	1.05	2.36	2.26	9.49	2.30

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.24	5.67	5.59	5.20	5.61	5.62	5.49	2.035E+03	6.520E+02	3.12
2	8.18	8.18	8.55	8.51	8.20	8.30	8.32	2.046E+03	3.515E+02	5.82

Data Set Number = 18

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.03	13.39	1.94	2.34	2.25	9.45	2.30

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.27	5.64	5.59	5.24	5.67	5.59	5.49	2.045E+03	6.541E+02	3.13
2	8.14	8.15	8.51	8.48	8.27	8.30	8.30	2.057E+03	3.545E+02	5.80

Data Set Number = 19

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
13.95	13.32	1.71	2.42	2.05	9.33	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.43	5.34	5.33	4.40	5.35	5.32	5.00	1.159E+03	4.281E+02	2.71
2	6.91	6.91	7.40	7.40	7.02	7.14	7.15	1.169E+03	2.473E+02	4.72

Data Set Number = 20

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
13.95	13.32	1.70	2.42	2.00	9.32	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.44	5.42	5.29	4.44	5.32	5.38	5.05	1.158E+03	4.172E+02	2.78
2	6.93	6.91	7.40	7.40	7.03	7.14	7.16	1.168E+03	2.456E+02	4.76

NOTE: 20 X-- pairs were dropped in plot data file PDSMD64

Disk number = 13  
 File name: DSM065  
 This data set taken on : 03:02:15:47:27

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.07	10.52	.85	2.21	2.31	8.15	2.26

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	27.02	30.86	28.54	26.45	28.07	30.32	28.54	9.176E+04	3.563E+03	25.75
2	25.69	26.52	26.81	26.74	26.68	25.46	26.32	9.161E+04	3.916E+03	23.40
3	30.72	31.31	29.62	31.30	31.29	28.84	30.51	9.267E+04	3.375E+03	27.46

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.04	10.45	.87	2.23	2.33	8.12	2.28

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	27.13	30.72	28.30	26.46	27.72	30.25	28.43	9.174E+04	3.582E+03	25.62
2	25.84	26.44	26.82	26.80	26.67	25.46	26.34	9.157E+04	3.914E+03	23.39
3	30.73	31.21	29.48	31.25	31.18	28.78	30.44	9.263E+04	3.368E+03	27.36

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.90	9.86	.95	2.18	2.24	7.90	2.21

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	21.50	24.10	21.97	21.25	21.66	23.57	22.35	7.454E+04	3.785E+03	19.70
2	20.12	20.22	20.58	19.88	20.29	20.30	20.23	7.442E+04	4.264E+03	17.45
3	22.98	22.57	22.66	22.89	22.86	22.76	22.79	7.529E+04	3.788E+03	19.68

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.88	9.82	.97	2.16	2.24	7.89	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	21.40	24.07	22.19	21.27	21.92	23.54	22.40	7.434E+04	3.763E+03	19.75
2	20.12	20.36	20.64	19.95	20.40	20.33	20.30	7.432E+04	4.234E+03	17.53
3	22.00	22.53	22.71	22.87	22.86	22.83	22.80	7.509E+04	3.774E+03	19.93

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.85	9.70	1.09	2.17	2.21	7.86	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	15.90	16.31	16.94	16.40	15.03	17.72	16.72	5.314E+04	3.744E+03	14.19
2	15.74	15.33	16.19	14.89	15.24	16.24	15.62	5.301E+04	4.087E+03	12.97
3	18.44	17.70	18.66	18.05	18.10	19.09	18.34	5.366E+04	3.448E+03	15.56

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.86	9.68	1.11	2.17	2.23	7.88	2.20			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	15.90	18.18	16.94	16.36	15.05	17.57	16.67	5.296E+04	3.747E+03	14.14
2	15.71	15.33	16.20	15.00	15.26	16.25	15.63	5.285E+04	4.077E+03	12.97
3	18.51	17.73	18.62	18.18	18.16	19.00	18.37	5.347E+04	3.433E+03	15.58

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.77	10.08	1.12	2.19	2.31	7.99	2.25			
Tube	Wall Temperatures (Deg C)						Tnve	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.88	14.17	13.56	13.19	12.01	13.71	13.25	3.166E+04	2.937E+03	10.78
2	13.29	13.11	13.48	12.56	12.57	13.35	13.06	3.160E+04	3.021E+03	10.46
3	14.87	15.17	15.95	14.79	15.34	16.05	15.36	3.201E+04	2.534E+03	12.63

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.77	10.10	1.13	2.20	2.31	8.00	2.25			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.90	14.07	13.60	13.24	12.00	13.59	13.23	3.166E+04	2.943E+03	10.76
2	13.30	13.14	13.49	12.58	12.57	13.34	13.07	3.160E+04	3.019E+03	10.47
3	14.84	15.14	15.85	14.78	15.28	15.92	15.30	3.201E+04	2.547E+03	12.57

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.69	10.17	1.04	2.13	2.23	7.97	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.41	10.93	10.74	10.47	10.10	10.57	10.53	1.634E+04	1.990E+03	8.21
2	11.15	11.20	11.43	11.07	10.82	11.28	11.16	1.631E+04	1.874E+03	8.70
3	12.21	12.18	12.78	12.46	12.25	12.60	12.41	1.654E+04	1.682E+03	9.83

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.68	10.17	1.05	2.13	2.24	7.97	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.45	10.93	10.74	10.48	10.10	10.55	10.54	1.634E+04	1.989E+03	8.21
2	11.15	11.22	11.43	11.05	10.81	11.22	11.15	1.633E+04	1.878E+03	8.69
3	12.23	12.19	12.77	12.45	12.23	12.56	12.40	1.656E+04	1.686E+03	9.82

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.56	10.00	.98	2.12	2.22	8.12	2.17			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.02	9.50	9.44	9.01	9.10	9.26	9.22	1.085E+04	1.565E+03	6.94
2	9.70	9.70	9.98	9.64	9.54	9.77	9.75	1.085E+04	1.478E+03	7.34
3	11.02	10.82	11.18	11.30	10.87	10.96	11.03	1.101E+04	1.298E+03	8.48

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.55	10.89	.99	2.12	2.23	8.14	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	9.04 9.52 9.42 9.01 9.10 9.27 9.23		7.689E+04	1.297E+03	6.94
2	9.70 9.71 9.99 9.84 9.54 9.77 9.76		1.089E+04	1.484E+03	7.34
3	10.97 10.82 11.18 11.23 10.89 10.97 11.01		1.105E+04	1.305E+03	8.46

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.49	11.38	1.00	2.19	2.26	8.29	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	7.98 8.52 8.37 7.92 8.20 8.36 8.23		7.659E+03	1.297E+03	5.90
2	8.65 8.67 8.92 8.82 8.63 8.75 8.74		7.665E+03	1.219E+03	6.29
3	10.25 10.05 10.24 10.47 10.17 10.11 10.22		7.792E+03	1.020E+03	7.64

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.48	11.42	1.01	2.18	2.26	8.30	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	7.97 8.52 8.37 7.92 8.18 8.35 8.22		7.674E+03	1.290E+03	5.90
2	8.65 8.69 8.91 8.82 8.64 8.74 8.74		7.679E+03	1.220E+03	6.29
3	10.16 10.01 10.20 10.45 10.10 10.05 10.16		7.803E+03	1.029E+03	7.59

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.44	11.60	1.00	2.24	2.25	8.35	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	6.61 7.20 6.99 6.55 6.96 7.07 6.90		4.668E+03	1.021E+03	4.57
2	7.36 7.40 7.80 7.70 7.64 7.71 7.60		4.678E+03	9.097E+02	5.14
3	9.32 9.13 9.16 9.54 9.23 9.09 9.24		4.760E+03	7.152E+02	6.65

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.47	11.62	1.00	2.25	2.25	8.35	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	6.59 7.20 6.99 6.54 6.97 7.07 6.89		4.681E+03	1.025E+03	4.57
2	7.35 7.36 7.81 7.66 7.63 7.70 7.59		4.692E+03	9.148E+02	5.13
3	9.36 9.13 9.17 9.59 9.18 9.09 9.25		4.773E+03	7.160E+02	6.67

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.40	11.66	.83	2.24	2.09	8.30	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	5.07 5.61 5.45 5.01 5.50 5.52 5.36		2.562E+03	8.199E+02	3.13
2	5.62 5.87 6.33 6.25 6.19 6.25 6.11		2.573E+03	6.864E+02	3.75
3	8.04 8.07 7.92 8.15 8.16 7.88 8.04		2.625E+03	4.732E+02	5.55

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.39	11.65	.81	2.21	2.07	8.28	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.04	5.55	5.43	5.00	5.45	5.47	5.32	2.561E+03	8.238E+02	3.11
2	5.77	5.78	6.29	6.21	6.16	6.22	6.07	2.574E+03	6.907E+02	3.73
3	8.04	8.05	7.84	8.18	8.13	7.83	8.01	2.626E+03	4.740E+02	5.54

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.36	11.67	.74	2.23	2.03	8.26	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.28	4.87	4.73	4.27	4.77	4.81	4.62	1.212E+03	4.993E+02	2.43
2	5.31	5.28	6.01	5.94	5.87	5.94	5.72	1.222E+03	3.591E+02	3.40
3	6.93	7.04	6.62	7.01	7.10	6.63	6.89	1.250E+03	2.815E+02	4.44

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.36	11.65	.77	2.31	2.02	8.26	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.29	4.93	4.76	4.29	4.80	4.86	4.66	1.211E+03	4.990E+02	2.43
2	5.34	5.31	6.06	5.98	5.92	6.00	5.77	1.221E+03	3.582E+02	3.41
3	6.97	7.08	6.66	7.05	7.13	6.68	6.93	1.249E+03	2.814E+02	4.44

NOTE 20 X-Y pairs were stored in plot data file PSDMD65

Disk number = 13

File name DSMD66

This data set taken on 03 02:19:22:17

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.23	8.71	.99	2.21	2.44	6.64	2.32

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	24.65	27.94	24.94	24.05	24.52	27.62	25.62	9.296E+04	4.084E+03	22.76
2	24.13	24.81	25.18	24.71	25.64	24.29	24.79	9.274E+04	4.253E+03	21.80
3	27.33	28.35	27.50	28.27	27.78	25.12	27.39	9.388E+04	3.869E+03	24.27
4	30.35	31.41	32.11	28.50	27.89	31.88	30.36	9.074E+04	3.346E+03	27.12

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.20	8.71	1.00	2.23	2.46	6.63	2.34

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	24.61	28.14	25.03	24.00	24.66	27.75	25.70	9.288E+04	4.071E+03	22.81
2	24.11	24.81	25.34	24.92	25.67	24.33	24.86	9.277E+04	4.245E+03	21.85
3	27.46	28.50	27.69	28.45	27.89	25.19	27.53	9.389E+04	3.850E+03	24.38
4	30.51	31.46	32.25	28.59	27.97	31.91	30.45	9.072E+04	3.336E+03	27.19

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.09	8.41	.92	2.08	2.24	6.47	2.16

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	19.99	23.08	20.57	19.91	19.54	22.62	20.95	7.333E+04	3.995E+03	18.35
2	18.97	18.98	19.49	18.63	19.41	19.19	19.11	7.318E+04	4.466E+03	16.39
3	19.44	19.83	19.75	20.19	19.35	18.43	19.50	7.411E+04	4.454E+03	16.64
4	22.69	23.64	23.07	20.34	20.46	24.82	22.50	7.163E+04	3.668E+03	19.53

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.09	8.33	.90	2.08	2.23	6.44	2.16

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	20.01	23.15	20.58	20.00	19.60	22.54	20.98	7.352E+04	3.999E+03	18.39
2	18.97	19.02	19.49	18.62	19.47	19.22	19.13	7.341E+04	4.473E+03	16.41
3	19.47	19.65	19.63	20.23	19.41	18.51	19.55	7.430E+04	4.451E+03	16.69
4	22.69	23.71	23.05	20.38	20.48	24.91	22.54	7.183E+04	3.671E+03	19.56

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.24	8.16	1.03	2.11	2.22	6.48	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	16.13	18.85	17.14	16.52	15.55	18.29	17.08	5.536E+04	3.800E+03	14.57
2	15.56	15.20	15.91	14.61	15.14	15.84	15.38	5.525E+04	4.338E+03	12.74
3	14.71	14.21	14.59	14.71	14.55	14.69	14.58	5.592E+04	4.736E+03	11.81
4	19.03	18.97	19.07	16.54	17.11	20.55	18.55	5.410E+04	3.456E+03	15.65

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.25	8.14	1.03	2.14	2.23	6.47	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	15.98	15.19	17.08	16.37	15.49	18.69	17.13	5.562E+04	3.808E+03	14.60
2	15.64	15.29	15.87	14.63	15.12	15.87	15.40	5.553E+04	4.356E+03	12.75
3	14.74	14.27	14.74	14.74	14.60	14.78	14.65	5.622E+04	4.742E+03	11.86
4	19.05	19.07	19.11	16.64	17.20	20.71	18.63	5.438E+04	3.459E+03	15.72

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.45	8.15	1.03	2.13	2.24	6.57	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	12.53	14.31	13.52	12.92	12.03	13.88	13.20	3.404E+04	3.155E+03	10.79
2	12.72	12.50	12.85	11.91	11.95	12.60	12.45	3.399E+04	3.430E+03	9.91
3	12.58	12.85	12.25	12.95	12.72	12.56	12.53	3.442E+04	3.492E+03	9.88
4	15.76	15.35	15.69	13.65	14.17	16.66	15.25	3.329E+04	2.673E+03	12.46

Data Set Number = 8

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.47	8.13	1.10	2.14	2.24	6.57	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	12.55 14.36 13.57 12.95	12.02 13.91 13.22	3.409E+04	3.156E+03	10.80
2	12.73 12.53 12.85 11.94	12.00 12.83 12.48	3.402E+04	3.427E+03	9.93
3	12.56 12.07 12.37 12.94	12.67 12.55 12.53	3.445E+04	3.500E+03	9.84
4	15.92 15.38 15.79 13.68	14.20 16.87 15.31	3.333E+04	2.667E+03	12.50

Data Set Number = 9

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.67	8.35	1.12	2.22	2.28	6.72	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	10.08 11.20 10.50 10.19	9.77 10.88 10.44	1.758E+04	2.187E+03	8.04
2	10.32 10.34 10.61 10.17	10.10 10.58 10.35	1.756E+04	2.244E+03	7.82
3	10.79 10.56 10.69 11.20	10.92 10.65 10.81	1.780E+04	2.183E+03	8.16
4	12.74 12.77 12.67 11.62	11.89 13.61 12.55	1.722E+04	1.764E+03	9.76

Data Set Number = 10

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.69	8.38	1.11	2.21	2.27	6.72	2.24

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	10.09 11.33 10.50 10.21	9.81 11.01 10.49	1.754E+04	2.165E+03	8.10
2	10.33 10.39 10.59 10.19	10.09 10.58 10.36	1.752E+04	2.233E+03	7.85
3	10.77 10.59 10.70 11.29	10.93 10.66 10.82	1.777E+04	2.173E+03	8.18
4	12.68 12.74 12.63 11.59	11.80 13.58 12.52	1.718E+04	1.763E+03	9.74

Data Set Number = 11

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.80	8.46	1.03	2.15	2.25	6.76	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	8.80 9.59 8.99 8.84	8.60 9.37 9.03	1.191E+04	1.774E+03	6.71
2	9.15 9.21 9.47 9.20	9.12 9.46 9.27	1.190E+04	1.745E+03	6.62
3	9.34 9.43 9.52 9.80	9.64 9.47 9.54	1.208E+04	1.736E+03	6.96
4	11.51 11.76 11.50 10.75	10.99 12.31 11.47	1.168E+04	1.333E+03	8.77

Data Set Number = 12

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.80	8.48	1.03	2.15	2.25	6.77	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
#	1 2 3 4 5 6				
1	8.79 9.57 9.04 8.82	8.59 9.36 9.03	1.192E+04	1.777E+03	6.71
2	9.14 9.24 9.47 9.25	9.17 9.49 9.29	1.192E+04	1.741E+03	6.85
3	9.34 9.41 9.52 9.79	9.65 9.49 9.53	1.210E+04	1.739E+03	6.96
4	11.43 11.75 11.46 10.76	11.00 12.31 11.45	1.170E+04	1.337E+03	8.75

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.88	9.27	1.02	2.18	2.25	7.05	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.74	8.31	7.90	7.73	7.70	8.18	7.93	8.126E+03	1.448E+03	5.61
2	8.01	8.05	8.20	8.08	7.93	8.13	8.07	8.133E+03	1.446E+03	5.62
3	7.97	8.25	8.35	8.28	8.38	8.28	8.25	8.264E+03	1.455E+03	5.68
4	10.54	10.88	10.69	9.92	10.09	11.25	10.58	8.003E+03	1.016E+03	7.88

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.88	9.35	1.02	2.18	2.24	7.08	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	7.75	8.32	7.89	7.73	7.70	8.20	7.93	8.157E+03	1.451E+03	5.62
2	8.04	8.08	8.22	8.08	7.95	8.17	8.09	8.161E+03	1.444E+03	5.65
3	7.98	8.25	8.38	8.32	8.36	8.30	8.27	8.293E+03	1.455E+03	5.70
4	10.67	10.93	10.71	9.99	10.17	11.30	10.63	8.014E+03	1.010E+03	7.93

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.93	9.95	.95	2.13	2.15	7.27	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.45	6.88	6.62	6.42	6.55	6.79	6.62	5.251E+03	1.196E+03	4.39
2	6.66	6.71	6.79	6.75	6.66	6.74	6.72	5.262E+03	1.205E+03	4.37
3	6.83	7.03	7.11	7.07	7.11	7.02	7.03	5.355E+03	1.178E+03	4.55
4	9.48	9.50	9.53	6.99	9.16	9.65	9.39	5.171E+03	7.632E+02	6.78

Data Set Number = 16

	T1	T2	T3	Tld1	Tld2	Tvav	Tldav			
	10.93	9.98	.94	2.12	2.14	7.28	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.41	6.85	6.59	6.39	6.54	6.79	6.60	5.259E+03	1.200E+03	4.38
2	6.64	6.70	6.76	6.71	6.60	6.71	6.69	5.265E+03	1.212E+03	4.34
3	6.81	6.95	7.08	7.03	7.06	7.01	7.00	5.362E+03	1.185E+03	4.52
4	9.55	9.55	9.62	6.95	9.10	9.72	9.41	5.179E+03	7.605E+02	6.81

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.96	10.19	.96	2.20	2.19	7.37	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.35	5.70	5.50	5.32	5.52	5.65	5.51	2.962E+03	9.132E+02	3.24
2	5.74	5.78	5.85	5.85	5.83	5.85	5.82	2.975E+03	8.683E+02	3.43
3	6.12	6.20	6.31	6.26	6.24	6.27	6.23	3.033E+03	8.174E+02	3.71
4	6.45	6.25	6.53	6.07	6.15	6.53	6.35	2.927E+03	5.138E+02	5.70

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.97	10.20	.97	2.20	2.20	7.38	2.20			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
1	1	2	3	4	5	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.36	5.70	5.49	5.32	5.50	5.65	5.50	2.967E+03	9.171E+02	3.23
2	5.75	5.80	5.85	5.83	5.82	5.84	5.81	2.978E+03	8.720E+02	3.42
3	6.11	6.19	6.33	6.26	6.23	6.26	6.23	3.036E+03	8.198E+02	3.70
4	8.43	8.35	8.50	8.06	8.13	8.48	8.33	2.931E+03	5.169E+02	5.67

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.98	10.27	.96	2.23	2.18	7.40	2.20			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.48	4.91	4.68	4.48	4.72	4.89	4.69	1.412E+03	5.821E+02	2.43
2	5.15	5.16	5.36	5.32	5.42	5.44	5.31	1.423E+03	4.889E+02	2.91
3	6.18	6.17	6.01	6.26	6.20	6.02	6.14	1.455E+03	4.026E+02	3.61
4	7.05	6.81	7.10	6.79	6.84	6.93	6.92	1.402E+03	3.289E+02	4.26

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.99	10.26	1.02	2.29	2.25	7.42	2.27			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.63	5.05	4.83	4.66	4.88	5.02	4.85	1.407E+03	5.606E+02	2.51
2	5.36	5.36	5.54	5.47	5.59	5.63	5.49	1.418E+03	4.687E+02	3.03
3	6.36	6.30	6.21	6.42	6.33	6.22	6.31	1.450E+03	3.906E+02	3.71
4	7.19	6.94	7.23	6.91	6.97	7.07	7.05	1.398E+03	3.231E+02	4.33

NOTE 20 X-Y pairs were stored in plot data file PDSMD66

Dist number = 13

File name D5MD67

This data set taken on 03 02 20 28 56

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.60	7.54	.64	2.06	2.25	5.99	2.15			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	23.15	26.58	23.53	22.84	22.95	26.22	24.21	8.904E+04	4.134E+03	21.54
2	21.91	22.38	22.63	21.96	23.06	22.19	22.36	8.888E+04	4.546E+03	19.55
3	24.09	24.95	24.52	24.87	24.50	22.49	24.24	8.996E+04	4.224E+03	21.38
4	24.81	27.07	26.93	23.95	23.01	27.13	25.48	8.698E+04	3.877E+03	22.43
5	35.05	35.46	33.44	29.61	31.74	34.72	33.34	8.821E+04	2.925E+03	30.15

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldv			
	9.55	7.52	.84	2.06	2.26	5.97	2.16			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	23.19	26.66	23.44	22.83	22.97	26.28	24.23	8.895E+04	4.127E+03	21.55
2	21.76	22.24	22.56	21.92	23.00	22.16	22.27	8.884E+04	4.563E+03	19.47
3	24.05	24.91	24.45	24.89	24.52	22.46	24.21	8.994E+04	4.228E+03	21.27
4	24.89	27.09	26.97	23.91	23.06	27.20	25.52	8.696E+04	3.871E+03	22.47
5	35.07	35.42	33.51	29.63	31.73	34.77	33.36	8.821E+04	2.924E+03	30.17

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.33	7.37	.89	2.05	2.23	5.87	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	21.08	24.06	21.27	20.96	20.59	23.54	21.92	7.813E+04	4.045E+03	19.32
2	19.83	20.03	20.44	19.63	20.57	20.23	20.12	7.796E+04	4.482E+03	17.39
3	20.75	21.25	21.05	21.50	20.83	19.42	20.80	7.893E+04	4.401E+03	17.94
4	21.28	23.05	22.67	20.19	19.64	23.54	21.73	7.633E+04	4.071E+03	18.75
5	29.49	29.53	27.18	24.62	26.65	28.44	27.65	7.742E+04	3.155E+03	24.54

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.32	7.36	.87	2.07	2.23	5.85	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	21.08	23.89	21.23	20.95	20.66	23.40	21.87	7.822E+04	4.062E+03	19.26
2	19.81	20.02	20.42	19.68	20.59	20.21	20.12	7.807E+04	4.492E+03	17.38
3	20.74	21.14	21.01	21.48	20.86	19.43	20.78	7.905E+04	4.416E+03	17.90
4	21.29	23.04	22.72	20.19	19.68	23.57	21.75	7.643E+04	4.074E+03	18.76
5	29.53	29.57	27.18	24.70	26.59	28.40	27.66	7.749E+04	3.158E+03	24.54

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.51	8.24	1.03	2.16	2.28	6.26	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	17.30	19.55	18.12	17.52	16.91	18.95	18.06	5.837E+04	3.771E+03	15.48
2	16.13	15.93	16.51	15.42	15.89	16.29	16.03	5.827E+04	4.374E+03	13.32
3	14.86	14.48	15.02	14.92	14.66	15.03	14.83	5.902E+04	4.923E+03	11.99
4	16.67	17.23	16.82	15.10	15.32	16.28	16.57	5.707E+04	4.192E+03	13.61
5	22.52	21.60	20.07	16.60	20.76	21.64	20.90	5.792E+04	3.253E+03	17.80

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.50	6.08	1.05	2.16	2.29	6.28	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	17.25	15.51	18.09	17.51	16.89	18.97	16.04	5.851E+04	3.786E+03	15.45
2	16.10	15.90	16.52	15.36	15.85	16.29	16.01	5.837E+04	4.388E+03	13.30
3	14.87	14.48	15.01	14.93	14.66	15.04	14.63	5.913E+04	4.933E+03	11.99
4	16.66	17.22	16.85	15.09	15.32	16.30	16.57	5.719E+04	4.202E+03	13.61
5	22.66	21.95	20.21	18.71	20.86	21.74	21.02	5.804E+04	3.238E+03	17.92

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.77	7.57	1.08	2.12	2.23	6.14	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	12.51	14.64	13.61	12.66	12.10	14.21	13.32	3.463E+04	3.173E+03	10.91
2	12.46	12.29	12.16	11.57	11.87	12.67	12.24	3.455E+04	3.561E+03	9.70
3	11.64	11.04	11.49	11.82	11.65	11.91	11.59	3.500E+04	3.926E+03	8.92
4	12.42	12.66	12.38	12.18	12.49	14.74	12.32	3.389E+04	3.218E+03	10.52
5	16.52	16.04	15.60	14.40	16.17	16.92	15.95	3.438E+04	2.640E+03	13.02

Data Set Number = 8

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.79	7.50	1.09	2.12	2.25	6.13	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.49	14.41	12.59	12.90	12.09	14.01	13.25	3.471E+04	3.205E+03	10.83
2	12.48	12.31	12.63	11.60	11.91	12.71	12.27	3.463E+04	3.561E+03	9.73
3	11.66	11.05	11.53	11.84	11.65	11.93	11.61	3.510E+04	3.930E+03	8.93
4	13.47	13.72	13.43	12.25	12.59	14.73	13.37	3.394E+04	3.213E+03	10.56
5	16.67	16.15	15.65	14.43	16.18	16.97	16.01	3.447E+04	2.637E+03	13.07

Data Set Number = 9

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.91	7.42	1.11	2.13	2.27	6.15	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.86	11.13	10.40	9.98	9.67	10.90	10.32	1.821E+04	2.285E+03	7.97
2	9.88	9.87	10.22	9.65	9.64	10.15	9.90	1.819E+04	2.451E+03	7.42
3	10.07	9.95	10.16	10.61	10.33	10.21	10.22	1.845E+04	2.425E+03	7.61
4	11.45	11.40	11.34	10.64	10.82	12.08	11.29	1.784E+04	2.087E+03	8.55
5	13.08	13.01	12.87	12.00	12.96	13.67	12.93	1.812E+04	1.801E+03	10.06

Data Set Number = 10

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.92	7.42	1.13	2.15	2.27	6.16	2.21

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.08	11.17	10.42	10.16	9.68	10.89	10.40	1.820E+04	2.263E+03	8.04
2	9.92	9.93	10.27	9.67	9.68	10.18	9.94	1.817E+04	2.438E+03	7.46
3	10.15	9.99	10.25	10.59	10.35	10.27	10.27	1.843E+04	2.409E+03	7.65
4	11.39	11.43	11.31	10.61	10.78	12.12	11.27	1.782E+04	2.089E+03	8.53
5	13.07	13.01	12.84	12.01	13.00	13.63	12.93	1.809E+04	1.800E+03	10.05

Data Set Number = 11

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.99	7.48	1.12	2.13	2.31	6.20	2.22

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.83	9.71	9.01	8.84	8.56	9.55	9.09	1.252E+04	1.855E+03	6.75
2	8.53	9.01	9.25	8.83	8.81	9.10	8.99	1.250E+04	1.918E+03	6.52
3	9.15	9.21	9.32	9.59	9.45	9.30	9.34	1.269E+04	1.883E+03	6.74
4	10.20	10.17	10.18	9.60	9.74	10.63	10.09	1.227E+04	1.657E+03	7.36
5	11.88	11.96	11.84	11.10	11.76	12.45	11.84	1.246E+04	1.367E+03	8.98

Data Set Number = 12

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.99	7.47	1.12	2.15	2.31	6.19	2.23

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.84	9.70	8.99	8.85	8.53	9.57	9.08	1.252E+04	1.860E+03	6.73
2	8.93	9.01	9.26	8.83	8.81	9.11	8.99	1.251E+04	1.920E+03	6.51
3	9.19	9.19	9.32	9.61	9.47	9.31	9.35	1.269E+04	1.883E+03	6.74
4	10.20	10.14	10.17	9.59	9.74	10.62	10.09	1.227E+04	1.671E+03	7.34
5	11.88	11.92	11.81	11.12	11.77	12.41	11.83	1.246E+04	1.390E+03	8.96

Data Set Number = 13

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.06	7.66	1.02	2.09	2.28	6.25	2.19			
Tube #	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.87	8.54	7.94	7.84	7.70	8.46	8.06	8.995E+03	1.559E+03	5.77
2	8.07	8.15	8.39	8.08	8.09	8.26	8.17	8.997E+03	1.564E+03	5.75
3	8.33	8.42	8.47	8.64	8.52	8.40	8.46	9.143E+03	1.546E+03	5.91
4	8.98	9.13	9.01	8.56	8.66	9.47	8.97	8.831E+03	1.404E+03	6.29
5	10.97	11.15	10.96	10.25	10.69	11.44	10.91	8.967E+03	1.106E+03	8.10

Data Set Number = 14

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.07	7.68	1.02	2.09	2.28	6.26	2.18			
Tube #	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.85	8.56	7.93	7.83	7.70	8.48	8.06	8.973E+03	1.555E+03	5.77
2	8.06	8.15	8.42	8.12	8.08	8.27	8.18	8.972E+03	1.555E+03	5.77
3	8.33	8.39	8.42	8.67	8.54	8.37	8.45	9.120E+03	1.544E+03	5.91
4	9.02	9.14	9.04	8.54	8.62	9.46	8.97	8.808E+03	1.399E+03	6.30
5	10.99	11.17	10.95	10.27	10.70	11.45	10.92	8.945E+03	1.102E+03	8.12

Data Set Number = 15

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.06	8.69	1.00	2.16	2.29	6.58	2.22			
Tube #	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.76	7.30	6.87	6.75	6.79	7.24	6.95	5.693E+03	1.226E+03	4.64
2	7.04	7.12	7.41	7.15	7.27	7.35	7.22	5.700E+03	1.192E+03	4.78
3	7.49	7.41	7.46	7.72	7.46	7.36	7.48	5.802E+03	1.180E+03	4.92
4	7.71	7.86	7.75	7.50	7.58	8.12	7.76	5.601E+03	1.107E+03	5.06
5	9.90	10.06	9.90	9.36	9.62	10.24	9.85	5.688E+03	8.099E+02	7.02

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.05	8.74	1.00	2.16	2.30	6.60	2.23			
Tube #	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.79	7.31	6.87	6.75	6.81	7.25	6.96	5.697E+03	1.225E+03	4.65
2	7.05	7.11	7.45	7.16	7.30	7.39	7.24	5.707E+03	1.189E+03	4.80
3	7.55	7.41	7.45	7.78	7.46	7.37	7.51	5.807E+03	1.177E+03	4.93
4	7.71	7.84	7.77	7.51	7.58	8.16	7.78	5.604E+03	1.103E+03	5.08
5	9.92	10.10	9.90	9.36	9.62	10.24	9.86	5.691E+03	8.099E+02	7.02

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.11	9.14	1.00	2.13	2.17	6.72	2.15			
Tube #	Well Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.50	5.97	5.55	5.45	5.55	5.95	5.66	3.367E+03	9.789E+02	3.44
2	5.92	5.97	6.11	5.92	6.14	6.15	6.02	3.375E+03	9.179E+02	3.68
3	6.54	6.31	6.50	6.73	6.34	6.44	6.48	3.444E+03	6.619E+02	4.00
4	6.81	6.65	6.69	6.72	6.77	7.02	6.79	3.322E+03	7.957E+02	4.17
5	6.95	6.71	6.67	6.26	6.41	6.84	6.55	3.375E+03	5.794E+02	5.82

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.11	9.16	.90	2.13	2.18	6.72	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.49	5.99	5.55	5.45	5.55	5.96	5.66	3.372E+03	9.808E+02	3.44
2	5.92	5.96	6.12	5.91	6.15	6.15	6.03	3.384E+03	9.196E+02	3.60
3	6.58	6.32	6.52	6.75	6.36	6.44	6.50	3.448E+03	8.596E+02	4.01
4	6.64	6.92	6.71	6.71	6.76	7.04	6.80	3.327E+03	7.949E+02	4.19
5	8.55	8.71	8.63	8.25	8.39	8.82	8.56	3.380E+03	5.812E+02	5.82

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.14	9.33	1.00	2.30	2.25	6.82	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.60	4.84	4.61	4.58	4.66	4.82	4.69	1.525E+03	6.499E+02	2.35
2	5.20	5.22	5.15	5.09	5.16	5.18	5.16	1.535E+03	5.694E+02	2.70
3	5.83	5.74	5.83	5.91	5.77	5.83	5.82	1.570E+03	4.872E+02	3.22
4	6.28	6.28	6.34	6.29	6.33	6.36	6.32	1.514E+03	4.211E+02	3.59
5	7.25	7.37	7.36	6.96	7.06	7.44	7.24	1.537E+03	3.504E+02	4.39

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.15	9.35	.99	2.31	2.26	6.83	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.56	4.81	4.60	4.57	4.64	4.79	4.66	1.529E+03	6.621E+02	2.31
2	5.17	5.17	5.11	5.05	5.12	5.13	5.13	1.541E+03	5.822E+02	2.65
3	5.78	5.70	5.81	5.86	5.70	5.80	5.77	1.574E+03	4.975E+02	3.16
4	6.23	6.25	6.29	6.24	6.29	6.36	6.28	1.517E+03	4.284E+02	3.54
5	7.18	7.31	7.30	6.92	7.03	7.36	7.19	1.541E+03	3.564E+02	4.32

NOTE: 20 X-Y pairs were stored in plot data file POSMD67

Disk number = 13

File name DSMDE8

This data set taken on - 02 25:12:35-25

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.77	4.80	1.31	2.28	2.23	3.95	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	24.90	28.72	26.02	24.54	25.20	28.44	26.31	8.870E+04	3.770E+03	23.53
2	24.67	25.05	26.13	25.21	25.34	25.01	25.23	8.853E+04	3.964E+03	22.33
3	31.15	33.58	30.24	31.70	33.85	28.55	31.51	8.959E+04	3.147E+03	28.47
4	37.59	36.28	39.23	34.58	33.78	36.02	36.38	8.678E+04	2.612E+03	33.23
5	40.77	41.69	42.76	38.33	40.56	44.04	41.36	8.786E+04	2.308E+03	38.07

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.66	4.75	1.22	2.29	2.25	3.88	2.27

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	24.83	28.63	26.01	24.64	25.03	28.39	26.26	8.871E+04	3.780E+03	23.47
2	24.42	24.85	25.95	25.01	25.29	25.04	25.09	8.851E+04	3.991E+03	22.18
3	31.44	33.64	30.19	31.99	33.55	28.91	31.62	8.958E+04	3.136E+03	28.57
4	37.56	36.44	39.23	34.53	33.73	36.98	36.41	8.684E+04	2.612E+03	33.25
5	40.82	41.73	42.77	38.28	40.47	44.09	41.36	8.789E+04	2.309E+03	38.06

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.31	4.55	1.01	2.24	2.21	3.63	2.22

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	22.52	25.58	22.96	22.24	22.43	25.13	23.47	7.883E+04	3.793E+03	20.78
2	21.83	22.08	22.60	21.69	22.11	21.97	22.05	7.867E+04	4.091E+03	19.23
3	24.64	26.56	24.94	25.19	26.75	23.58	25.28	7.961E+04	3.566E+03	22.32
4	28.69	27.03	30.16	27.52	26.83	27.70	27.99	7.718E+04	3.097E+03	24.92
5	33.04	33.42	33.65	31.43	33.22	34.91	33.28	7.812E+04	2.598E+03	30.07

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.29	4.56	1.07	2.25	2.21	3.64	2.23

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	22.41	25.62	23.11	22.17	22.26	25.22	23.47	7.902E+04	3.804E+03	20.77
2	21.99	22.20	22.74	21.76	22.16	21.97	22.14	7.887E+04	4.083E+03	19.31
3	24.65	26.46	24.89	25.18	26.68	23.83	25.28	7.961E+04	3.575E+03	22.32
4	28.73	27.15	30.34	27.52	27.00	27.87	26.11	7.736E+04	3.089E+03	25.04
5	33.18	33.67	33.94	31.52	33.21	35.18	33.47	7.829E+04	2.587E+03	30.26

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.55	4.95	1.02	2.19	2.16	3.84	2.18

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	14.77	16.92	15.54	14.75	14.57	16.33	15.48	4.914E+04	3.781E+03	12.99
2	14.31	14.17	14.75	13.95	13.96	14.34	14.25	4.903E+04	4.216E+03	11.63
3	12.92	12.65	13.23	13.10	12.99	12.26	13.03	4.967E+04	4.830E+03	10.28
4	15.13	15.10	15.29	13.61	13.97	16.31	14.94	4.816E+04	3.991E+03	12.07
5	16.85	16.59	17.51	16.74	16.18	16.70	16.09	4.873E+04	3.228E+03	15.09

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
5.55	4.98	1.02	2.19	2.16	3.85	2.17

Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	14.74	16.86	15.52	14.72	14.75	16.33	15.49	4.907E+04	3.772E+03	13.01
2	14.36	14.22	14.77	14.00	13.96	14.36	14.26	4.899E+04	4.197E+03	11.67
3	12.92	12.67	13.26	13.11	12.99	12.25	13.03	4.962E+04	4.821E+03	10.29
4	15.10	15.10	15.20	13.76	13.91	16.28	14.89	4.814E+04	4.002E+03	12.03
5	16.75	16.45	17.39	16.53	16.05	16.59	17.96	4.871E+04	3.254E+03	14.97

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.47	5.70	1.68	2.12	2.10	4.62	2.11

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	9.66	11.50	10.49	9.93	9.33	11.18	10.35	2.898E+04	3.607E+03	8.03
2	10.24	10.10	10.51	9.82	9.67	10.40	10.12	2.894E+04	3.769E+03	7.68
3	10.43	10.17	10.22	10.76	10.60	10.50	10.45	2.931E+04	3.723E+03	7.87
4	11.95	11.72	11.79	10.99	11.11	12.61	11.69	2.846E+04	3.164E+03	9.00
5	14.70	14.53	13.58	13.24	14.39	14.58	14.17	2.879E+04	2.539E+03	11.34

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.54	5.75	1.66	2.12	2.10	4.65	2.11

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	9.70	11.54	10.50	9.94	9.29	11.24	10.37	2.903E+04	3.605E+03	8.05
2	10.23	10.12	10.51	9.83	9.67	10.41	10.13	2.899E+04	3.771E+03	7.69
3	10.44	10.15	10.23	10.75	10.59	10.51	10.44	2.938E+04	3.732E+03	7.87
4	11.94	11.73	11.79	10.98	11.13	12.62	11.70	2.851E+04	3.168E+03	9.00
5	14.75	14.56	13.60	13.16	14.38	14.59	14.17	2.884E+04	2.542E+03	11.34

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.18	5.05	1.26	2.24	2.22	4.16	2.23

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	7.83	8.86	8.22	7.84	7.68	8.67	8.18	1.401E+04	2.408E+03	5.82
2	8.11	8.13	8.32	8.02	7.62	8.23	8.10	1.401E+04	2.495E+03	5.61
3	8.56	8.56	8.70	8.82	8.76	8.66	8.69	1.421E+04	2.341E+03	6.07
4	9.82	9.72	9.70	9.42	9.44	10.28	9.73	1.381E+04	1.976E+03	6.99
5	12.05	12.33	11.66	11.30	11.79	12.23	11.89	1.395E+04	1.548E+03	9.02

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.17	5.07	1.26	2.26	2.23	4.16	2.24

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	7.81	8.84	8.20	7.85	7.66	8.59	8.16	1.401E+04	2.421E+03	5.79
2	8.13	8.13	8.31	8.03	7.81	8.21	8.10	1.400E+04	2.500E+03	5.60
3	8.54	8.56	8.68	8.68	8.76	8.64	8.68	1.420E+04	2.350E+03	6.04
4	9.81	9.67	9.71	9.42	9.42	10.22	9.71	1.380E+04	1.986E+03	6.95
5	12.03	12.29	11.56	11.28	11.77	12.11	11.84	1.395E+04	1.557E+03	8.95

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.17	4.83	1.10	2.12	2.10	4.02	2.11

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.77	7.38	6.97	6.76	6.65	7.25	6.96	9.814E+03	2.066E+03	4.75
2	7.17	7.21	7.23	7.25	6.85	7.12	7.11	9.621E+03	2.062E+03	4.76
3	7.78	7.78	7.95	8.05	7.90	7.66	7.89	9.979E+03	1.842E+03	5.42
4	8.82	8.82	8.60	8.53	8.50	9.25	8.79	9.696E+03	1.567E+03	6.19
5	10.58	10.73	10.25	10.02	10.32	10.62	10.41	9.786E+03	1.275E+03	7.66

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.13	4.83	1.09	2.10	2.09	4.02	2.10

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.77	7.36	6.98	6.76	6.64	7.22	6.96	9.839E+03	2.070E+03	4.75
2	7.17	7.22	7.23	7.05	6.89	7.16	7.12	9.845E+03	2.058E+03	4.78
3	7.82	7.78	7.96	8.07	7.90	7.90	7.91	1.000E+04	1.838E+03	5.44
4	8.82	8.82	8.79	8.55	8.52	9.21	8.78	9.718E+03	1.569E+03	6.19
5	10.41	10.61	10.22	10.02	10.33	10.56	10.36	9.812E+03	1.284E+03	7.64

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.26	5.08	1.07	2.10	2.11	4.15	2.11

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.97	6.33	6.08	5.99	5.88	6.27	6.09	6.735E+03	1.733E+03	3.89
2	6.45	6.50	6.38	6.31	6.18	6.33	6.36	6.746E+03	1.673E+03	4.03
3	7.00	7.04	7.13	7.22	7.10	7.07	7.09	6.860E+03	1.480E+03	4.64
4	7.93	7.91	7.96	7.68	7.67	8.22	7.89	6.666E+03	1.255E+03	5.31
5	8.84	9.05	8.90	8.67	8.67	9.13	8.91	6.730E+03	1.086E+03	6.19

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.30	5.11	1.05	2.11	2.11	4.15	2.11

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.99	6.38	6.08	5.99	5.86	6.32	6.11	6.737E+03	1.724E+03	3.91
2	6.44	6.51	6.38	6.33	6.20	6.35	6.37	6.748E+03	1.669E+03	4.04
3	6.99	7.06	7.15	7.22	7.12	7.09	7.10	6.865E+03	1.478E+03	4.65
4	7.91	7.92	7.93	7.69	7.68	8.20	7.89	6.666E+03	1.258E+03	5.30
5	8.84	9.05	8.80	8.60	8.79	9.05	8.85	6.726E+03	1.096E+03	6.14

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.58	5.53	.95	2.13	2.17	4.36	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.08	5.42	5.15	5.09	5.01	5.39	5.19	3.875E+03	1.306E+03	2.97
2	5.40	5.45	5.46	5.45	5.39	5.48	5.44	3.889E+03	1.262E+03	3.08
3	5.96	6.00	5.96	6.11	6.02	5.93	6.00	3.963E+03	1.127E+03	3.52
4	6.68	6.61	6.74	6.61	6.52	6.62	6.65	3.851E+03	9.544E+02	4.03
5	7.01	7.19	7.16	7.02	7.10	7.32	7.13	3.882E+03	8.851E+02	4.39

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.60	5.52	.94	2.11	2.15	4.36	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.07	5.41	5.10	5.09	5.04	5.39	5.19	3.872E+03	1.300E+03	2.98
2	5.40	5.45	5.47	5.44	5.40	5.48	5.44	3.887E+03	1.254E+03	3.10
3	5.99	6.00	6.00	6.13	6.03	5.93	6.01	3.959E+03	1.116E+03	3.55
4	6.70	6.66	6.76	6.63	6.56	6.66	6.66	3.849E+03	9.426E+02	4.08
5	7.00	7.24	7.22	7.04	7.14	7.40	7.15	3.880E+03	8.684E+02	4.47

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	6.84	5.81	1.05	2.22	2.27	4.56	2.25	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	4.38	4.66	4.43	4.37	4.43	4.64	4.48	2.200E+03
2	4.64	4.66	4.73	4.71	4.74	4.77	4.71	2.215E+03
3	5.26	5.24	5.18	5.36	5.27	5.14	5.24	2.260E+03
4	5.74	5.70	5.80	5.62	5.65	5.84	5.72	2.197E+03
5	5.89	6.00	6.03	5.90	5.96	6.11	5.99	2.215E+03

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	6.87	5.84	1.03	2.23	2.27	4.58	2.25	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	4.39	4.66	4.45	4.40	4.46	4.64	4.50	2.215E+03
2	4.67	4.70	4.76	4.72	4.78	4.79	4.74	2.228E+03
3	5.31	5.33	5.27	5.39	5.35	5.23	5.31	2.278E+03
4	5.78	5.72	5.84	5.67	5.70	5.88	5.76	2.212E+03
5	5.92	6.04	6.08	5.93	6.00	6.17	6.02	2.228E+03

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	7.23	5.92	.95	2.21	2.10	4.70	2.15	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	3.72	3.87	3.74	3.72	3.78	3.86	3.78	1.216E+03
2	4.07	4.08	4.11	4.09	4.13	4.18	4.11	1.229E+03
3	4.66	4.60	4.55	4.71	4.61	4.64	4.61	1.256E+03
4	4.94	4.81	5.01	4.88	4.91	4.95	4.92	1.222E+03
5	4.89	5.00	5.09	4.99	5.03	5.14	5.02	1.230E+03

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	7.30	5.94	.95	2.24	2.09	4.73	2.16	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	3.76	3.91	3.76	3.76	3.81	3.90	3.82	1.209E+03
2	4.12	4.13	4.14	4.12	4.17	4.22	4.15	1.220E+03
3	4.69	4.64	4.62	4.76	4.67	4.60	4.66	1.248E+03
4	5.01	4.87	5.09	4.95	4.99	5.00	4.99	1.215E+03
5	4.94	5.04	5.15	5.01	5.06	5.20	5.07	1.222E+03

NOTE: 20 X-Y pairs were stored in plot data file PDSMD68

Dist number = 13  
 File name DMSD68  
 This data set taken on 02 25:11:03 33

Data Set Number = 1

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.85	7.79	1.72	2.32	2.26	6.45	2.29			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	14.29	17.29	15.50	14.41	14.53	16.89	15.48	4.765E+04	3.696E+03	12.89
2	13.98	13.88	14.70	13.87	13.68	14.29	14.07	4.755E+04	4.191E+03	11.35
3	13.62	12.85	13.16	13.71	13.23	13.35	13.32	4.817E+04	4.601E+03	10.47
4	14.92	14.76	15.09	13.35	13.52	15.92	14.59	4.673E+04	4.021E+03	11.62
5	17.49	16.89	15.77	14.89	16.73	17.14	16.49	4.730E+04	3.534E+03	13.38

Data Set Number = 2

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.54	7.51	1.78	2.37	2.31	6.28	2.34			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	14.35	17.29	15.45	14.51	14.46	16.85	15.48	4.766E+04	3.712E+03	12.84
2	13.98	13.87	14.58	13.73	13.66	14.28	14.02	4.758E+04	4.230E+03	11.25
3	13.62	12.83	13.16	13.69	13.16	13.35	13.30	4.819E+04	4.634E+03	10.40
4	14.95	14.78	15.08	13.39	13.56	15.99	14.62	4.676E+04	4.030E+03	11.60
5	17.52	16.94	15.79	14.93	16.77	17.16	16.52	4.732E+04	3.541E+03	13.36

Data Set Number = 3

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.13	6.49	1.68	2.21	2.17	5.43	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.89	12.67	11.59	11.05	10.70	12.42	11.55	3.118E+04	3.407E+03	9.15
2	10.78	10.70	11.28	10.61	10.35	11.05	10.80	3.111E+04	3.765E+03	8.26
3	11.15	10.70	10.74	11.45	11.16	10.96	11.03	3.154E+04	3.770E+03	8.37
4	12.19	11.86	12.08	11.26	11.36	12.77	11.92	3.061E+04	3.352E+03	9.13
5	13.70	13.41	12.89	12.36	13.69	13.85	13.31	3.097E+04	2.980E+03	10.39

Data Set Number = 4

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.05	6.42	1.67	2.20	2.16	5.39	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.81	12.65	11.54	10.99	10.59	12.41	11.50	3.118E+04	3.426E+03	9.10
2	10.78	10.68	11.28	10.56	10.36	11.05	10.79	3.113E+04	3.770E+03	8.26
3	11.15	10.71	10.72	11.45	11.16	10.96	11.02	3.154E+04	3.770E+03	8.36
4	12.19	11.85	12.09	11.21	11.31	12.69	11.89	3.062E+04	3.353E+03	9.10
5	13.72	13.46	12.82	12.33	13.64	13.83	13.30	3.097E+04	2.981E+03	10.39

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.46	7.85	1.69	2.14	2.11	6.00	2.12			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.26	8.26	7.66	7.33	7.03	8.03	7.61	1.560E+04	2.916E+03	5.35
2	7.69	7.65	7.91	7.60	7.37	7.84	7.67	1.558E+04	2.947E+03	5.29
3	8.20	8.26	8.20	8.54	8.51	8.24	8.33	1.582E+04	2.724E+03	5.61
4	9.07	8.69	8.92	8.59	8.51	9.27	8.84	1.537E+04	2.482E+03	6.19
5	10.48	10.62	10.22	9.89	10.28	10.64	10.35	1.553E+04	2.050E+03	7.56

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.54	7.83	1.67	2.12	2.10	6.02	2.11

Tube #	Well Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	7.23	8.23	7.65	7.31	7.06	7.97	7.58	1.562E+04	2.932E+03	5.33
2	7.64	7.62	7.90	7.60	7.45	7.81	7.67	1.561E+04	2.949E+03	5.29
3	8.18	8.25	8.19	8.52	8.50	8.21	8.31	1.584E+04	2.730E+03	5.80
4	9.08	8.69	8.93	8.56	8.42	9.27	8.83	1.539E+04	2.486E+03	6.19
5	10.50	10.69	10.19	9.84	10.27	10.65	10.36	1.555E+04	2.049E+03	7.59

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.08	9.29	1.26	2.28	2.22	6.81	2.25

Tube #	Well Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.55	7.27	6.88	6.57	6.52	7.08	6.81	1.057E+04	2.378E+03	4.45
2	6.90	6.93	7.03	6.85	6.69	6.95	6.89	1.057E+04	2.404E+03	4.40
3	7.34	7.55	7.61	7.64	7.68	7.55	7.56	1.074E+04	2.176E+03	4.94
4	8.34	8.03	8.27	8.15	8.09	8.46	8.22	1.044E+04	1.908E+03	5.47
5	9.99	10.18	9.80	9.41	9.69	10.15	9.87	1.054E+04	1.506E+03	6.99

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.92	9.37	1.26	2.28	2.21	6.85	2.25

Tube #	Well Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.57	7.27	6.87	6.58	6.56	7.09	6.82	1.057E+04	2.367E+03	4.47
2	6.95	6.96	7.09	6.92	6.71	7.01	6.94	1.058E+04	2.375E+03	4.45
3	7.41	7.60	7.60	7.67	7.72	7.58	7.59	1.075E+04	2.159E+03	4.98
4	8.40	8.10	8.35	8.18	8.14	8.52	8.28	1.044E+04	1.895E+03	5.54
5	10.12	10.30	9.92	9.42	9.71	10.27	9.96	1.054E+04	1.488E+03	7.09

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.84	7.97	1.09	2.14	2.09	5.97	2.11

Tube #	Well Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	5.80	6.46	6.16	5.80	5.92	6.32	6.08	7.513E+03	1.943E+03	3.87
2	6.25	6.29	6.51	6.41	6.28	6.41	6.36	7.525E+03	1.871E+03	4.02
3	6.98	7.19	7.02	7.20	7.27	6.99	7.11	7.652E+03	1.650E+03	4.64
4	7.91	7.65	7.93	7.53	7.50	7.97	7.75	7.430E+03	1.442E+03	5.15
5	9.24	9.45	9.19	8.43	8.67	9.51	9.08	7.506E+03	1.181E+03	6.36

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.82	8.01	1.07	2.13	2.09	5.97	2.11

Tube #	Well Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	5.76	6.44	6.10	5.72	5.87	6.32	6.03	7.514E+03	1.961E+03	3.82
2	6.16	6.16	6.46	6.36	6.33	6.39	6.31	7.520E+03	1.809E+03	3.98
3	6.95	7.14	6.90	7.18	7.25	6.88	7.05	7.646E+03	1.666E+03	4.59
4	7.88	7.62	7.91	7.39	7.40	7.97	7.69	7.432E+03	1.455E+03	5.11
5	9.19	9.41	9.20	8.34	8.61	9.49	9.04	7.506E+03	1.187E+03	6.32

Date Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.76	7.72	1.12	2.24	2.33	5.87	2.29

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.19	5.95	5.58	5.21	5.48	5.93	5.56	4.737E+03	1.485E+03	3.19
2	5.67	5.64	5.95	5.98	5.93	5.98	5.86	4.747E+03	1.412E+03	3.36
3	6.26	6.51	6.18	6.54	6.56	6.15	6.38	4.840E+03	1.288E+03	3.76
4	7.08	6.86	7.13	6.63	6.65	7.10	6.91	4.703E+03	1.132E+03	4.16
5	7.71	7.88	7.83	7.19	7.37	8.04	7.67	4.741E+03	9.902E+02	4.79

Date Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.77	7.69	1.12	2.28	2.29	5.86	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.18	5.95	5.63	5.19	5.52	5.91	5.56	4.736E+03	1.481E+03	3.20
2	5.68	5.71	6.05	6.06	5.90	6.01	5.90	4.751E+03	1.394E+03	3.41
3	6.41	6.56	6.16	6.58	6.61	6.15	6.41	4.834E+03	1.276E+03	3.79
4	7.11	6.93	7.16	6.60	6.63	7.14	6.93	4.700E+03	1.126E+03	4.18
5	7.74	7.91	7.83	7.20	7.37	8.01	7.68	4.747E+03	9.897E+02	4.80

Date Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.88	7.69	.95	2.12	2.27	5.85	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.50	5.27	4.81	4.51	4.78	5.27	4.86	2.622E+03	1.018E+03	2.59
2	4.82	4.82	5.19	5.09	5.27	5.22	5.09	2.635E+03	9.775E+02	2.70
3	5.69	5.58	5.27	5.80	5.61	5.27	5.54	2.689E+03	8.918E+02	3.02
4	6.07	5.95	6.07	5.63	5.65	6.13	5.91	2.617E+03	8.027E+02	3.26
5	6.31	6.43	6.41	5.95	6.06	6.51	6.28	2.637E+03	7.534E+02	3.50

Date Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.90	7.63	.95	2.12	2.25	5.82	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.46	5.27	4.79	4.48	4.77	5.23	4.83	2.620E+03	1.018E+03	2.57
2	4.80	4.81	5.17	5.06	5.26	5.22	5.07	2.632E+03	9.798E+02	2.69
3	5.70	5.60	5.24	5.81	5.62	5.23	5.53	2.690E+03	8.904E+02	3.02
4	6.02	5.94	6.06	5.60	5.67	6.14	5.91	2.615E+03	8.008E+02	3.27
5	6.32	6.45	6.40	5.98	6.09	6.53	6.29	2.632E+03	7.465E+02	3.52

Date Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.10	7.88	.93	2.30	2.26	5.98	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.94	4.22	4.12	3.95	4.12	4.20	4.09	1.167E+03	6.775E+02	1.75
2	4.25	4.38	4.61	4.57	4.50	4.61	4.51	1.198E+03	5.883E+02	2.04
3	4.87	4.84	4.67	4.54	4.87	4.68	4.81	1.226E+03	5.546E+02	2.21
4	4.98	4.85	5.01	4.77	4.83	5.05	4.92	1.194E+03	5.448E+02	2.19
5	4.99	5.07	5.11	4.90	4.95	5.16	5.03	1.201E+03	5.530E+02	2.17

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.12	7.84	.92	2.26	2.34	5.96	2.30

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.92	4.14	4.09	3.94	4.11	4.12	4.05	1.190E+03	7.039E+02	1.69
2	4.35	4.34	4.52	4.52	4.44	4.53	4.45	1.202E+03	6.132E+02	1.96
3	4.85	4.85	4.67	4.91	4.89	4.68	4.81	1.230E+03	5.628E+02	2.19
4	4.96	4.88	5.02	4.77	4.80	4.99	4.91	1.197E+03	5.552E+02	2.16
5	4.99	5.09	5.12	4.91	4.96	5.15	5.04	1.204E+03	5.578E+02	2.16

NOTE: 16 X-Y pairs were stored in plot data file PSDM069

Dist number = 14  
 File name: DSM070  
 This data set taken on : 03:06:14:41:08

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	15.30	14.15	-.53	2.02	2.34	9.64	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	40.58	44.07	41.92	39.99	41.41	44.40	42.20	8.983E+04	2.275E+03	39.48

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	15.29	14.13	-.54	2.00	2.33	9.63	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	40.43	45.00	41.84	39.74	41.38	44.54	42.15	8.986E+04	2.277E+03	39.46

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	15.15	13.96	-.12	1.98	2.42	9.66	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	34.42	34.94	33.02	33.98	32.62	34.54	33.92	7.695E+04	2.462E+03	31.26

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	15.13	13.94	-.12	2.00	2.46	9.65	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	34.40	35.18	33.03	33.87	32.68	34.80	33.99	7.716E+04	2.465E+03	31.30

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	14.97	14.01	-.21	2.07	2.44	9.73	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	27.55	25.64	24.78	27.42	23.80	25.04	25.71	4.858E+04	2.100E+03	23.14

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.96	14.02	.21	2.10	2.41	9.73	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	27.60	25.73	24.84	27.43	23.84	25.16	25.77	4.857E+04	2.094E+03	23.20

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.82	14.03	.10	2.02	2.27	9.65	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	23.27	21.78	21.73	23.22	20.85	21.21	22.01	2.865E+04	1.458E+03	19.65

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.81	14.03	.11	2.02	2.26	9.65	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	23.22	21.91	21.80	23.21	21.01	21.31	22.08	2.867E+04	1.454E+03	19.72

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.70	13.98	.12	1.99	2.37	9.60	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	18.53	17.09	18.34	18.44	17.93	18.56	17.81	1.327E+04	8.559E+02	15.50

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.70	13.97	.10	1.99	2.36	9.59	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	18.51	17.10	18.31	18.50	17.87	18.55	17.81	1.327E+04	8.559E+02	15.50

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.59	13.91	.23	2.08	2.41	9.58	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	16.74	15.35	16.58	16.72	16.34	14.89	16.11	9.528E+03	6.922E+02	13.76

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.59	13.90	.24	2.08	2.45	9.57	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	16.64	15.26	16.59	16.67	16.34	14.64	16.06	9.514E+03	6.946E+02	13.78

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.49	13.83	.22	2.07	2.33	9.51	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	14.12	13.47	14.07	14.13	13.89	13.23	13.82	6.257E+03	5.427E+02	11.53

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.48	13.83	.23	2.06	2.28	9.51	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	14.21	13.60	14.20	14.23	14.02	13.32	13.93	6.220E+03	5.334E+02	11.66

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.41	13.75	.15	2.28	2.23	9.44	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	11.25	11.13	11.50	11.25	11.43	10.92	11.25	3.609E+03	4.048E+02	8.92

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.40	13.73	.15	2.29	2.20	9.43	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	11.25	11.18	11.55	11.28	11.48	10.96	11.29	3.604E+03	4.022E+02	8.96

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.32	13.67	.14	2.37	1.92	9.38	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.02	8.47	8.59	8.05	8.60	8.41	8.36	1.778E+03	2.893E+02	6.15

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.31	13.67	.14	2.41	1.91	9.38	2.16

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.01	8.59	8.59	8.03	8.59	8.50	8.38	1.780E+03	2.893E+02	6.15

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.22	13.61	.28	2.53	2.06	9.37	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.57	7.02	7.19	6.58	7.21	6.96	6.92	1.063E+03	2.330E+02	4.56

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.21	13.60	.30	2.62	2.11	9.37	2.37

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.64	7.11	7.29	6.66	7.32	7.04	1.062E+03	2.316E+02	4.58

NOTE: 20 X-Y pairs were stored in plot data file PDSMD70

Disk number = 14

File name DSD71

This data set taken on : 03:06:13:10:36

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.35	15.75	.10	2.04	2.37	10.73	2.21

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	31.29	33.67	30.73	31.43	29.89	33.14	31.69	8.457E+04	2.918E+03	28.98
2	38.16	37.89	39.07	36.05	39.03	39.42	38.27	8.435E+04	2.380E+03	35.43

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.35	15.77	.13	2.06	2.41	10.75	2.23

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	31.25	35.59	30.72	31.44	29.61	33.05	31.61	8.444E+04	2.924E+03	28.88
2	38.15	37.90	39.16	36.19	39.17	39.39	38.33	8.422E+04	2.375E+03	35.46

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.40	15.90	.30	2.16	2.37	10.88	2.26

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	28.25	30.10	27.22	28.60	25.90	29.40	26.29	7.362E+04	2.878E+03	25.58
2	34.30	34.05	34.74	31.82	34.70	34.98	34.12	7.344E+04	2.348E+03	31.28

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.42	15.90	.24	2.15	2.37	10.87	2.26

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	28.17	30.10	27.27	28.48	26.12	29.48	26.27	7.371E+04	2.883E+03	25.56
2	34.24	33.91	34.76	31.93	34.75	35.03	34.10	7.353E+04	2.352E+03	31.27

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.39	15.73	.36	2.17	2.37	10.83	2.25

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	27.85	25.52	22.65	24.22	21.25	24.95	23.78	5.471E+04	2.582E+03	21.19
2	28.92	28.68	29.25	26.00	28.71	29.15	26.46	5.456E+04	2.119E+03	25.74

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.39	15.69	.36	2.18	2.34	10.81	2.26

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	23.80	25.57	22.90	24.24	21.29	25.02	23.81	5.495E+04	2.592E+03	21.20
2	28.96	28.70	29.41	26.15	28.84	29.21	28.55	5.484E+04	2.124E+03	25.81

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.35	15.28	.35	2.22	2.28	10.66	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.23	20.50	18.70	19.35	17.82	20.06	19.28	3.300E+04	1.964E+03	16.80
2	24.27	24.16	24.12	21.66	23.15	23.64	23.50	3.293E+04	1.576E+03	20.89

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.35	15.30	.33	2.21	2.26	10.66	2.24

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	19.26	20.55	18.75	19.35	17.78	20.09	19.29	3.289E+04	1.955E+03	16.83
2	24.34	24.26	24.11	21.68	23.18	23.65	23.54	3.283E+04	1.568E+03	20.94

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.27	15.56	.39	2.32	2.19	10.74	2.26

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.41	15.05	14.29	14.35	13.94	14.67	14.45	1.730E+04	1.436E+03	12.05
2	20.16	20.18	19.85	18.46	18.79	19.18	19.44	1.727E+04	1.021E+03	16.90

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.26	15.58	.39	2.31	2.20	10.74	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	14.35	15.03	14.26	14.31	13.91	14.63	14.41	1.732E+04	1.443E+03	12.01
2	20.15	20.18	19.86	18.48	18.80	19.18	19.44	1.729E+04	1.022E+03	16.91

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.17	15.57	.34	2.19	2.10	10.69	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.16	12.77	12.21	12.08	12.02	12.48	12.29	1.253E+04	1.251E+03	10.02
2	17.77	17.77	17.55	16.65	16.68	16.96	17.23	1.252E+04	8.441E+02	14.83

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.16	15.56	.33	2.19	2.10	10.68	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	12.18	12.77	12.19	12.09	12.01	12.47	12.28	1.255E+04	1.253E+03	10.02
2	17.92	17.92	17.54	16.68	16.69	16.95	17.28	1.253E+04	8.416E+02	14.89

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.02	15.47	.39	2.21	2.12	10.63	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	10.17	10.90	10.40	10.10	10.31	10.68	10.43	8.802E+03	1.079E+03	8.16
2	15.69	15.68	15.55	15.18	14.73	14.91	15.29	8.808E+03	6.835E+02	12.89

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
16.01	15.47	.40	2.22	2.13	10.63	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	10.18	10.90	10.42	10.12	10.35	10.69	10.44	8.818E+03	1.080E+03	8.17
2	15.69	15.70	15.55	15.15	14.74	14.97	15.30	8.824E+03	6.844E+02	12.89

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
15.92	15.39	.39	2.21	2.15	10.55	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.21	8.82	8.56	8.16	8.56	8.66	8.50	5.556E+03	8.913E+02	6.23
2	13.38	13.36	13.49	13.42	12.77	12.91	13.22	5.564E+03	5.140E+02	10.82

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
15.91	15.38	.40	2.21	2.17	10.56	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.22	8.79	8.55	8.16	8.56	8.66	8.49	5.553E+03	8.936E+02	6.21
2	13.39	13.39	13.51	12.79	12.78	12.90	13.23	5.558E+03	5.136E+02	10.82

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
15.81	15.37	.47	2.26	2.18	10.53	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.64	7.24	7.07	6.62	7.12	7.14	6.97	3.193E+03	6.818E+02	4.68
2	11.54	11.52	11.88	11.95	11.08	11.23	11.53	3.206E+03	3.518E+02	9.11

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.80	15.30	.49	2.28	2.20	10.53	2.24

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.67	7.22	7.08	6.66	7.12	7.13	6.98	3.220E+03	6.899E+02	4.67
2	11.50	11.49	11.82	11.93	11.03	11.17	11.49	3.231E+03	3.572E+02	9.05

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.71	15.23	.35	2.28	2.15	10.43	2.22

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.99	5.82	5.85	4.96	5.85	5.76	5.54	1.436E+03	4.411E+02	3.26
2	8.23	8.21	8.94	8.97	8.48	8.61	8.57	1.446E+03	2.346E+02	6.16

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.71	15.23	.35	2.21	2.14	10.43	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.96	5.78	5.81	4.94	5.84	5.71	5.50	1.429E+03	4.375E+02	3.27
2	8.21	8.19	8.93	8.96	8.50	8.60	8.57	1.441E+03	2.323E+02	6.20

NOTE: 20 X-Y pairs were stored in plot data file PDSMD71

Dist number = 14

File name: D5MD72

This data set taken on 03-03 15:01:29

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.71	6.69	.01	2.04	2.27	5.14	2.15

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	32.68	36.92	33.74	32.49	32.96	36.59	34.23	8.770E+04	2.779E+03	31.56
2	31.40	31.90	32.57	32.04	32.46	31.84	32.03	8.755E+04	2.995E+03	29.23
3	37.53	37.65	37.20	37.54	38.04	36.63	37.47	8.854E+04	2.564E+03	34.53

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.70	6.65	.04	2.02	2.26	5.13	2.14

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	32.73	36.58	33.81	32.47	33.04	36.16	34.13	8.766E+04	2.785E+03	31.47
2	31.41	31.96	32.68	32.17	32.45	31.80	32.08	8.754E+04	2.988E+03	29.29
3	37.68	37.89	37.18	37.67	38.03	36.72	37.53	8.860E+04	2.560E+03	34.61

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.71	6.43	.37	2.11	2.28	5.17	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	25.57	28.33	26.31	25.82	24.45	27.84	26.39	7.146E+04	3.008E+03	23.76
2	26.68	26.51	26.94	26.11	26.29	26.65	26.53	7.132E+04	2.999E+03	23.78
3	31.35	31.91	31.91	31.35	32.17	31.80	31.75	7.218E+04	2.501E+03	28.86

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.71	6.39	.38	2.12	2.28	5.16	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	25.71	28.33	26.39	25.97	24.65	27.86	26.48	7.177E+04	3.009E+03	23.85
2	26.74	26.56	26.98	26.23	26.33	26.72	26.59	7.164E+04	3.006E+03	23.83
3	31.36	31.83	31.89	31.35	32.08	31.77	31.71	7.248E+04	2.515E+03	28.82

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.75	6.34	.56	2.20	2.38	5.21	2.29

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	22.28	24.08	22.83	22.53	21.05	23.68	22.74	5.450E+04	2.710E+03	20.11
2	23.32	23.17	23.64	22.90	22.69	23.27	23.16	5.438E+04	2.665E+03	20.41
3	26.76	27.19	27.65	26.78	27.40	27.44	27.20	5.502E+04	2.263E+03	24.32

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.76	6.36	.57	2.21	2.37	5.23	2.29

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	22.23	24.07	22.89	22.61	21.22	23.68	22.80	5.448E+04	2.701E+03	20.17
2	23.41	23.28	23.63	22.84	22.69	23.27	23.18	5.437E+04	2.663E+03	20.42
3	26.76	27.22	27.79	26.85	27.42	27.68	27.29	5.503E+04	2.255E+03	24.40

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.81	6.25	.56	2.21	2.30	5.21	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.19	19.39	18.78	18.26	17.66	19.02	18.55	3.382E+04	2.105E+03	16.07
2	19.36	19.34	19.79	19.27	18.85	19.29	19.32	3.375E+04	2.020E+03	16.71
3	22.05	22.63	23.01	22.39	22.65	22.70	22.60	3.419E+04	1.722E+03	19.66

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.82	6.26	.57	2.21	2.30	5.22	2.25

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	18.19	19.38	18.78	18.36	17.63	18.95	18.53	3.395E+04	2.117E+03	16.04
2	19.44	19.39	19.82	19.32	18.84	19.30	19.35	3.390E+04	2.026E+03	16.73
3	22.07	22.67	23.09	22.42	22.91	22.91	22.66	3.434E+04	1.725E+03	19.91

Date Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.99	6.42	.52	2.21	2.24	5.31	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	13.38	14.24	14.41	13.42	13.93	13.91	13.88	1.787E+04	1.553E+03	11.51
2	14.81	14.90	15.37	15.40	14.48	14.83	14.96	1.784E+04	1.432E+03	12.46
3	17.42	18.13	17.93	17.72	18.13	17.62	17.83	1.809E+04	1.191E+03	15.19

Date Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.02	6.40	.53	2.20	2.23	5.32	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	13.38	14.22	14.41	13.42	13.93	13.86	13.87	1.782E+04	1.309E+03	11.50
2	14.77	14.88	15.37	15.40	14.48	14.82	14.95	1.779E+04	1.428E+03	12.46
3	17.41	18.11	17.87	17.74	18.11	17.47	17.79	1.804E+04	1.190E+03	15.16

Date Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.22	6.53	.52	2.22	2.18	5.43	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.22	11.86	12.16	11.20	11.91	11.58	11.65	1.221E+04	1.309E+03	9.33
2	12.28	12.36	12.76	12.96	12.00	12.26	12.44	1.221E+04	1.223E+03	9.98
3	15.39	16.18	15.44	15.68	16.13	15.17	15.66	1.239E+04	9.475E+02	13.08

Date Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.25	6.57	.53	2.23	2.19	5.45	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.23	11.83	12.20	11.21	11.96	11.58	11.67	1.221E+04	1.308E+03	9.33
2	12.28	12.35	12.76	12.91	12.01	12.24	12.42	1.220E+04	1.225E+03	9.96
3	15.34	16.11	15.38	15.64	16.07	15.11	15.61	1.238E+04	9.513E+02	13.01

Date Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.38	7.35	.54	2.21	2.16	5.76	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.44	9.95	10.19	9.38	10.07	9.73	9.80	8.527E+03	1.136E+03	7.51
2	10.26	10.35	10.76	10.92	10.24	10.39	10.49	8.531E+03	1.057E+03	8.07
3	13.50	14.09	13.33	13.76	14.00	13.11	13.63	8.664E+03	7.817E+02	11.08

Date Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.38	7.45	.54	2.22	2.16	5.79	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.41	9.92	10.15	9.34	10.03	9.69	9.76	8.588E+03	1.151E+03	7.46
2	10.22	10.28	10.73	10.89	10.20	10.35	10.44	8.586E+03	1.070E+03	8.02
3	13.50	14.06	13.36	13.76	14.01	13.11	13.64	8.726E+03	7.871E+02	11.09

Data Set Number = 15

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	9.47	8.16	.62	2.28	2.26	6.08	2.27			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	7.92	8.25	8.46	7.85	8.42	8.08	8.16	5.522E+03	9.510E+02	5.81
2	8.71	8.77	9.10	9.22	8.71	8.84	8.89	5.535E+03	8.643E+02	6.40
3	12.01	12.66	11.93	12.24	12.58	11.83	12.21	5.635E+03	5.874E+02	9.59

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	9.48	8.20	.61	2.26	2.26	6.10	2.26			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	7.85	8.16	8.39	7.78	8.35	7.99	8.09	5.533E+03	9.638E+02	5.74
2	8.64	8.68	9.00	9.17	8.61	8.72	8.80	5.543E+03	8.761E+02	6.33
3	11.96	12.58	11.83	12.16	12.51	11.73	12.13	5.638E+03	5.921E+02	9.52

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	9.54	8.48	.62	2.30	2.21	6.21	2.25			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.25	6.74	6.71	6.20	6.74	6.65	6.55	3.248E+03	7.694E+02	4.22
2	7.82	7.82	7.65	7.60	7.49	7.54	7.39	3.261E+03	6.612E+02	4.93
3	10.21	10.56	9.90	10.37	10.53	9.88	10.24	3.325E+03	4.342E+02	7.66

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	9.54	8.51	.62	2.31	2.22	6.22	2.26			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.28	6.70	6.74	6.24	6.76	6.59	6.55	3.256E+03	7.723E+02	4.22
2	7.86	7.86	7.65	7.64	7.43	7.55	7.40	3.269E+03	6.630E+02	4.93
3	10.25	10.62	9.94	10.41	10.59	9.92	10.29	3.331E+03	4.331E+02	7.69

Data Set Number = 19

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	9.59	8.66	.51	2.41	2.09	6.25	2.25			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.71	5.80	5.33	4.68	5.39	5.74	5.27	1.475E+03	4.989E+02	2.96
2	5.57	5.57	6.75	6.41	6.78	6.87	6.32	1.487E+03	3.839E+02	3.87
3	7.90	7.96	7.45	7.99	7.93	7.45	7.78	1.520E+03	2.919E+02	5.21

Data Set Number = 20

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tldav			
	9.59	6.66	.50	2.42	2.10	6.25	2.26			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.74	5.80	5.32	4.70	5.39	5.75	5.28	1.476E+03	4.989E+02	2.96
2	5.60	5.57	6.76	6.41	6.77	6.65	6.32	1.480E+03	3.840E+02	3.88
3	7.85	7.92	7.41	7.93	7.90	7.42	7.74	1.521E+03	2.947E+02	5.16

NOTE 20 X-Y pairs were stored in plot data file PDSM072

Disk number = 14  
 File name: DSM73  
 This data set taken on : 03:03:13:35:20

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	7.68	5.73	.53	2.28	2.43	4.65	2.36

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m^2)	Qdp (W/m^2.K)	H (W/m^2.K)	Thetab (K)
1	30.20	34.11	30.27	29.71	29.84	33.78	31.32	8.674E+04	3.049E+03	28.45
2	30.11	30.40	31.45	31.05	31.10	30.52	30.77	8.658E+04	3.117E+03	27.78
3	30.92	31.82	31.96	31.77	31.59	29.52	31.26	8.758E+04	3.113E+03	28.13
4	37.14	39.61	38.03	34.37	34.11	40.67	37.32	8.472E+04	2.486E+03	34.08

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	7.68	5.72	.49	2.28	2.44	4.63	2.36

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m^2)	Qdp (W/m^2.K)	H (W/m^2.K)	Thetab (K)
1	30.36	33.90	30.32	29.83	29.95	33.51	31.31	8.666E+04	3.047E+03	28.44
2	30.13	30.59	31.66	31.32	31.20	30.61	30.92	8.653E+04	3.099E+03	27.92
3	31.02	31.98	32.13	31.90	31.69	29.62	31.39	8.757E+04	3.099E+03	28.26
4	36.83	39.50	37.71	34.19	34.02	40.63	37.15	8.469E+04	2.498E+03	33.90

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	7.65	5.59	.59	2.24	2.33	4.61	2.28

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m^2)	Qdp (W/m^2.K)	H (W/m^2.K)	Thetab (K)
1	24.92	28.15	25.66	24.89	24.26	27.68	25.93	7.261E+04	3.129E+03	23.20
2	24.58	24.55	25.49	24.56	25.00	25.34	24.92	7.250E+04	3.285E+03	22.07
3	24.70	24.34	24.70	24.74	24.64	23.84	24.49	7.336E+04	3.411E+03	21.51
4	31.84	33.75	32.16	29.37	29.53	35.03	31.94	7.093E+04	2.459E+03	28.84

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	7.65	5.59	.56	2.25	2.31	4.60	2.28

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m^2)	Qdp (W/m^2.K)	H (W/m^2.K)	Thetab (K)
1	24.62	28.52	25.44	24.60	23.96	28.13	25.88	7.236E+04	3.124E+03	23.16
2	24.33	24.26	25.18	24.18	24.79	25.12	24.65	7.224E+04	3.313E+03	21.80
3	24.43	24.11	24.46	24.50	24.41	23.64	24.26	7.310E+04	3.435E+03	21.28
4	31.62	33.46	31.95	29.16	29.32	34.77	31.71	7.064E+04	2.468E+03	28.62

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	7.81	5.66	.66	2.31	2.26	4.71	2.29

Tube #	1	2	3	4	5	6 (Deg C)	Tnave (W/m^2)	Qdp (W/m^2.K)	H (W/m^2.K)	Thetab (K)
1	19.93	23.57	21.09	20.20	19.20	23.21	21.20	5.196E+04	2.796E+03	18.59
2	20.32	20.14	20.79	19.98	20.00	20.58	20.30	5.186E+04	2.952E+03	17.56
3	19.82	19.27	19.29	19.07	19.74	19.35	19.27	5.249E+04	3.201E+03	16.40
4	26.57	27.00	26.54	23.72	24.34	28.52	26.12	5.075E+04	2.195E+03	23.12

Date Set Number = 6

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	19.93	23.42	21.09	20.16	19.20	23.21	21.17	5.177E+04	2.789E+03	18.56
2	20.23	20.08	20.79	19.93	19.98	20.55	20.26	5.168E+04	2.949E+03	17.52
3	18.89	19.25	19.24	19.02	19.68	19.31	19.23	5.233E+04	3.199E+03	16.36
4	26.47	26.95	26.49	23.65	24.18	26.42	26.03	5.061E+04	2.197E+03	23.03

Date Set Number = 7

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	15.71	17.50	16.58	15.05	15.50	17.27	16.40	3.096E+04	2.226E+03	13.91
2	15.81	15.75	16.12	15.93	15.05	15.67	15.72	3.090E+04	2.358E+03	13.10
3	15.05	16.41	16.02	15.79	16.70	16.02	16.00	3.131E+04	2.363E+03	13.25
4	21.67	15.89	21.61	16.97	19.54	21.41	20.52	3.029E+04	1.717E+03	17.64

Date Set Number = 8

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	15.75	17.57	16.51	15.89	15.40	17.35	16.42	3.096E+04	2.223E+03	13.93
2	15.82	15.79	16.08	15.92	15.10	15.68	15.73	3.091E+04	2.358E+03	13.11
3	15.17	16.39	16.02	15.86	16.68	16.01	16.02	3.131E+04	2.361E+03	13.27
4	21.67	15.94	21.62	16.95	19.54	21.51	20.54	3.029E+04	1.715E+03	17.66

Date Set Number = 9

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.39	12.54	12.02	11.36	11.49	12.33	11.86	1.565E+04	1.656E+03	9.44
2	11.64	11.87	12.20	12.29	11.26	11.70	11.87	1.567E+04	1.677E+03	9.22
3	11.62	12.66	12.06	12.23	12.01	12.29	12.40	1.566E+04	1.671E+03	9.72
4	15.70	14.15	15.55	14.70	15.05	15.42	15.44	1.534E+04	1.214E+03	12.64

Date Set Number = 10

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.42	12.51	12.02	11.40	11.57	12.26	11.67	1.559E+04	1.646E+03	9.46
2	11.60	11.65	12.17	12.24	11.25	11.65	11.63	1.556E+04	1.677E+03	9.29
3	11.61	12.65	12.02	12.21	12.05	12.25	12.37	1.561E+04	1.630E+03	9.70
4	15.65	14.14	15.55	14.71	15.05	15.42	15.44	1.526E+04	1.209E+03	12.64

Data Set Number = 11

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
8.94	6.09	.74	2.26	2.24	5.25	2.25

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	9.54	10.31	10.12	9.50	9.85	10.10	9.91	1.053E+04	1.396E+03	7.55
2	9.95	10.01	10.30	10.38	9.55	9.83	10.00	1.053E+04	1.401E+03	7.52
3	9.80	10.76	10.37	10.22	10.84	10.28	10.38	1.059E+04	1.378E+03	7.76
4	14.30	12.25	14.29	12.79	13.06	13.28	13.33	1.033E+04	9.764E+02	10.58

Data Set Number = 12

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
8.96	6.09	.74	2.26	2.24	5.26	2.25

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	9.53	10.39	10.07	9.49	9.80	10.20	9.91	1.057E+04	1.399E+03	7.55
2	9.92	10.01	10.29	10.37	9.55	9.83	9.99	1.057E+04	1.408E+03	7.51
3	9.76	10.75	10.37	10.22	10.85	10.28	10.37	1.073E+04	1.384E+03	7.75
4	14.32	12.22	14.28	12.78	13.06	13.22	13.31	1.037E+04	9.811E+02	10.57

Data Set Number = 13

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.19	6.74	.67	2.20	2.16	5.53	2.19

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	8.08	8.55	8.64	8.05	8.49	8.42	8.37	7.386E+03	1.214E+03	6.09
2	8.29	8.34	8.67	8.62	8.04	8.23	8.40	7.391E+03	1.235E+03	5.98
3	8.21	9.14	8.63	6.55	9.22	8.57	8.72	7.515E+03	1.217E+03	6.17
4	12.53	10.97	12.55	11.36	11.55	11.72	11.78	7.257E+03	7.967E+02	9.11

Data Set Number = 14

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.20	6.88	.67	2.19	2.18	5.58	2.19

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	8.08	8.54	8.62	8.03	8.49	8.41	8.36	7.400E+03	1.217E+03	6.08
2	8.28	8.33	8.66	8.61	8.02	8.20	8.38	7.406E+03	1.240E+03	5.97
3	8.24	9.14	8.61	6.56	9.22	8.56	8.72	7.529E+03	1.218E+03	6.18
4	12.56	10.97	12.57	11.36	11.56	11.73	11.79	7.275E+03	7.973E+02	9.12

Data Set Number = 15

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav
9.32	7.95	.64	2.19	2.13	5.97	2.16

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.65	6.94	7.19	6.51	7.17	6.82	6.89	4.593E+03	9.867E+02	4.65
2	6.87	6.89	7.25	7.43	6.62	6.76	6.97	4.605E+03	1.001E+03	4.60
3	6.86	7.78	7.19	7.09	7.82	7.13	7.31	4.690E+03	9.744E+02	4.81
4	10.67	9.72	10.73	9.78	9.89	10.21	10.17	4.528E+03	6.005E+02	7.54

Data Set Number = 16

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
9.33	8.00	.64	2.20	2.13	5.99	2.16

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.66	6.95	7.20	6.61	7.18	6.82	6.90	4.593E+03	9.857E+02	4.66
2	6.88	6.89	7.26	7.45	6.64	6.79	6.98	4.608E+03	9.894E+02	4.61
3	6.87	7.80	7.20	7.12	7.85	7.14	7.33	4.691E+03	9.716E+02	4.83
4	10.69	9.75	10.73	9.78	9.92	10.24	10.18	4.528E+03	5.995E+02	7.55

Data Set Number = 17

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
9.43	8.33	.69	2.23	2.16	6.15	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.29	5.52	5.73	5.25	5.77	5.42	5.50	2.411E+03	7.461E+02	3.23
2	5.67	5.69	6.02	6.18	5.57	5.65	5.80	2.424E+03	7.120E+02	3.40
3	5.85	6.50	6.00	6.00	6.53	5.96	6.14	2.472E+03	6.836E+02	3.62
4	8.76	8.36	8.84	8.34	8.38	8.62	8.55	2.386E+03	4.045E+02	5.90

Data Set Number = 18

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
9.43	8.36	.69	2.23	2.16	6.16	2.19

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.29	5.51	5.73	5.25	5.78	5.44	5.50	2.415E+03	7.462E+02	3.24
2	5.69	5.69	6.03	6.19	5.60	5.67	5.81	2.428E+03	7.103E+02	3.42
3	5.88	6.51	6.00	6.02	6.53	5.96	6.15	2.478E+03	6.829E+02	3.63
4	8.76	8.36	8.81	8.33	8.38	8.61	8.54	2.389E+03	4.054E+02	5.89

Data Set Number = 19

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
9.49	8.51	.70	2.20	2.17	6.23	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.46	4.85	5.13	4.47	5.13	4.58	4.74	1.202E+03	4.817E+02	2.50
2	5.02	5.02	5.49	5.55	4.96	5.01	5.18	1.212E+03	4.315E+02	2.81
3	5.21	5.93	5.22	5.32	5.97	5.21	5.51	1.240E+03	4.125E+02	3.01
4	7.47	7.14	7.55	7.05	7.07	7.32	7.27	1.195E+03	2.577E+02	4.64

Data Set Number = 20

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
9.55	8.52	.72	2.22	2.20	6.25	2.21

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.55	4.76	5.20	4.52	5.20	4.69	4.82	1.200E+03	4.706E+02	2.55
2	5.07	5.09	5.60	5.78	5.07	5.11	5.29	1.211E+03	4.192E+02	2.89
3	5.29	6.05	5.39	5.40	6.09	5.39	5.62	1.239E+03	4.030E+02	3.07
4	7.55	7.22	7.64	7.12	7.14	7.40	7.35	1.193E+03	2.540E+02	4.70

NOTE: DO NOT pairs were stored in plot data file PDSMCP23

Disk number = 14  
 File name DSHD74  
 This data set taken on : 03-03-08 52:07

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.03	10.55	.27	2.11	2.14	7.62	2.12			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	31.98	34.67	31.39	31.44	30.75	34.19	32.40	9.230E+04	3.103E+03	29.74
2	31.39	31.88	33.19	32.52	32.83	31.88	32.28	9.214E+04	3.124E+03	29.49
3	32.97	33.48	33.10	33.75	33.24	31.46	33.00	9.324E+04	3.100E+03	30.07
4	33.26	34.51	34.97	31.99	31.23	35.19	33.52	9.017E+04	2.958E+03	30.48
5	45.33	44.93	42.63	39.28	41.51	44.11	42.96	9.143E+04	2.298E+03	39.79

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.01	10.53	.24	2.10	2.13	7.59	2.12			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	32.07	34.79	31.52	31.54	31.04	34.29	32.54	9.159E+04	3.065E+03	29.88
2	31.29	31.89	33.12	32.47	32.80	31.90	32.23	9.139E+04	3.104E+03	29.45
3	32.87	33.45	33.05	33.62	33.23	31.36	32.93	9.248E+04	3.081E+03	30.01
4	33.22	34.44	34.88	31.97	31.15	35.08	33.46	8.945E+04	2.940E+03	30.43
5	45.16	44.77	42.52	39.17	41.47	43.96	42.84	9.070E+04	2.286E+03	39.67

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.11	10.92	.46	2.16	2.15	7.83	2.16			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	26.31	29.21	26.12	26.10	25.52	28.89	27.02	7.641E+04	3.130E+03	24.41
2	25.80	25.90	26.02	26.00	26.40	26.14	26.20	7.622E+04	3.249E+03	23.46
3	25.33	25.18	25.16	25.41	25.37	24.59	25.17	7.716E+04	3.460E+03	22.30
4	26.83	27.81	27.39	25.36	25.19	28.69	26.88	7.466E+04	3.125E+03	23.89
5	38.13	37.74	36.11	32.93	35.25	37.59	36.29	7.568E+04	2.282E+03	33.17

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.11	10.91	.34	2.15	2.17	7.79	2.16			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	26.28	29.24	26.08	25.99	25.26	28.80	26.94	7.612E+04	3.129E+03	24.33
2	25.60	25.74	26.67	25.93	26.46	26.06	26.07	7.598E+04	3.257E+03	23.33
3	25.21	24.97	24.74	25.27	25.15	24.31	24.94	7.693E+04	3.487E+03	22.06
4	26.65	27.65	27.22	25.21	25.04	26.53	26.72	7.442E+04	3.136E+03	23.73
5	37.95	37.56	35.89	32.80	35.11	37.32	36.11	7.545E+04	2.287E+03	32.99

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.49	11.68	.86	2.24	2.23	8.34	2.24			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .F)	(K)	
1	18.43	20.96	19.12	18.66	17.56	20.70	19.24	4.822E+04	2.889E+03	16.69
2	18.66	18.55	19.00	17.94	18.54	19.09	18.53	4.811E+04	3.015E+03	15.96
3	18.60	17.63	18.18	18.61	18.12	18.39	18.26	4.872E+04	3.154E+03	15.45
4	19.75	20.10	19.78	18.63	18.64	20.86	19.64	4.715E+04	2.822E+03	16.71
5	28.56	27.66	27.22	24.65	26.02	28.70	27.30	4.784E+04	1.973E+03	24.24

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.52	11.67	.70	2.19	2.23	8.30	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	18.48	20.64	19.05	18.71	17.51	20.41	19.13	4.850E+04	2.920E+03	16.61
2	18.69	18.55	19.01	17.96	18.54	19.09	18.64	4.840E+04	3.027E+03	15.99
3	18.58	17.62	18.19	18.59	18.13	18.42	18.25	4.902E+04	3.168E+03	15.47
4	19.03	20.06	19.86	18.69	18.66	20.78	19.64	4.742E+04	2.832E+03	16.74
5	28.48	27.81	27.24	24.67	26.82	28.68	27.28	4.808E+04	1.983E+03	24.25

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.14	10.20	.71	2.21	2.22	7.68	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	14.22	15.73	14.59	14.35	13.59	15.59	14.68	2.828E+04	2.307E+03	12.26
2	14.56	14.56	15.14	14.23	14.57	15.00	14.68	2.822E+04	2.327E+03	12.13
3	14.64	14.27	14.77	15.07	14.66	14.83	14.71	2.858E+04	2.377E+03	12.03
4	16.43	16.2E	16.44	15.55	15.65	17.07	16.23	2.766E+04	2.060E+03	15.43
5	20.22	19.99	20.25	18.41	19.98	21.32	20.03	2.807E+04	1.642E+03	17.10

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.10	10.13	.69	2.21	2.22	7.64	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	14.20	16.01	14.73	14.35	13.65	15.81	14.79	2.826E+04	2.284E+03	12.37
2	14.49	14.48	15.17	14.20	14.55	14.97	14.64	2.820E+04	2.332E+03	12.09
3	14.65	14.31	14.75	15.06	14.69	14.86	14.72	2.857E+04	2.372E+03	12.04
4	16.41	16.13	16.42	15.61	15.77	16.91	16.21	2.764E+04	2.062E+03	13.41
5	20.19	19.95	20.26	16.44	20.00	21.29	20.02	2.804E+04	1.641E+03	17.09

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.63	10.28	.65	2.15	2.23	7.52	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	10.35	11.60	10.65	10.37	10.23	11.48	10.78	1.394E+04	1.648E+03	8.46
2	10.90	10.97	11.48	10.85	10.87	11.14	11.04	1.393E+04	1.622E+03	8.59
3	11.23	11.32	11.68	11.70	11.50	11.56	11.50	1.413E+04	1.584E+03	8.92
4	12.32	11.93	12.31	11.98	12.06	12.47	12.18	1.366E+04	1.443E+03	9.47
5	13.62	14.00	14.34	13.67	14.46	14.96	14.20	1.386E+04	1.219E+03	11.37

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.61	10.31	.67	2.16	2.26	7.53	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	10.47	11.74	10.70	10.46	10.27	11.63	10.89	1.358E+04	1.590E+03	8.54
2	10.97	11.05	11.55	10.94	11.00	11.22	11.12	1.357E+04	1.566E+03	8.66
3	11.26	11.35	11.74	11.76	11.56	11.62	11.56	1.377E+04	1.538E+03	8.95
4	12.35	11.95	12.37	12.03	12.10	12.49	12.21	1.332E+04	1.403E+03	9.49
5	13.62	14.02	14.35	13.67	14.44	14.97	14.21	1.352E+04	1.193E+03	11.36

Data Set Number = 11

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.55	10.55	.73	2.23	2.36	7.61	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.97	9.92	9.28	8.96	9.10	9.86	9.35	9.553E+03	1.375E+03	6.95
2	9.51	9.59	10.06	9.63	9.64	9.77	9.70	9.553E+03	1.332E+03	7.17
3	9.75	9.85	10.02	10.12	9.98	9.94	9.94	9.705E+03	1.332E+03	7.28
4	10.35	10.19	10.37	10.13	10.19	10.60	10.31	9.378E+03	1.247E+03	7.52
5	12.00	12.20	12.61	12.29	12.83	13.05	12.50	9.516E+03	9.932E+02	9.58

Data Set Number = 12

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.55	10.55	.74	2.20	2.38	7.61	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.96	9.96	9.29	8.94	9.10	9.88	9.36	9.541E+03	1.372E+03	6.96
2	9.52	9.57	10.06	9.59	9.64	9.80	9.70	9.543E+03	1.331E+03	7.17
3	9.78	9.87	10.05	10.11	10.00	9.94	9.96	9.692E+03	1.328E+03	7.30
4	10.34	10.19	10.39	10.15	10.22	10.58	10.31	9.373E+03	1.246E+03	7.53
5	12.05	12.25	12.64	12.28	12.86	13.12	12.53	9.509E+03	9.887E+02	9.62

Data Set Number = 13

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.63	10.55	.70	2.18	2.31	7.63	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.63	8.51	7.92	7.60	7.91	8.45	8.00	6.590E+03	1.162E+03	5.67
2	8.11	8.16	8.64	8.29	8.37	8.45	8.34	6.597E+03	1.123E+03	5.87
3	8.39	8.37	8.52	8.64	8.44	8.41	8.46	6.709E+03	1.143E+03	5.87
4	8.59	8.61	8.64	8.49	8.53	8.86	8.62	6.482E+03	1.099E+03	5.90
5	10.59	10.80	11.18	10.97	11.32	11.48	11.06	6.576E+03	8.014E+02	8.21

Data Set Number = 14

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.64	10.56	.71	2.17	2.31	7.64	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.60	8.52	7.92	7.57	7.86	8.50	7.99	6.582E+03	1.163E+03	5.66
2	8.11	8.17	8.64	8.24	8.37	8.43	8.33	6.590E+03	1.124E+03	5.86
3	8.38	8.38	8.52	8.63	8.46	8.41	8.46	6.702E+03	1.142E+03	5.87
4	8.57	8.59	8.63	8.50	8.53	8.84	8.61	6.474E+03	1.099E+03	5.89
5	10.60	10.80	11.16	10.94	11.30	11.48	11.05	6.569E+03	8.015E+02	8.20

Data Set Number = 15

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.72	10.72	.59	2.10	2.20	7.68	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.09	6.62	6.20	6.04	6.18	6.61	6.29	3.837E+03	9.453E+02	4.06
2	6.54	6.59	6.70	6.53	6.62	6.63	6.60	3.848E+03	9.070E+02	4.24
3	6.81	6.83	7.05	6.97	6.85	7.00	6.92	3.917E+03	8.835E+02	4.43
4	6.97	6.90	7.04	7.11	7.13	7.06	7.04	3.781E+03	8.546E+02	4.42
5	8.96	9.15	9.52	9.38	9.53	9.70	9.37	3.840E+03	5.793E+02	6.63

Data Set Number = 16

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.76	10.75	.59	2.11	2.20	7.70	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.89	6.59	6.19	6.05	6.19	6.57	6.28	3.855E+03	9.524E+02	4.05
2	6.52	6.59	6.69	6.53	6.62	6.64	6.60	3.867E+03	9.123E+02	4.24
3	6.81	6.82	7.06	6.99	6.86	6.99	6.92	3.939E+03	8.885E+02	4.43
4	6.96	6.87	7.02	7.09	7.12	7.04	7.02	3.802E+03	8.641E+02	4.40
5	8.94	9.14	9.53	9.37	9.55	9.70	9.37	3.857E+03	5.821E+02	6.63

Data Set Number = 17

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
12.41	11.43	.59	2.13	2.15	8.14	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.83	5.02	4.86	4.80	4.92	5.01	4.91	1.928E+03	7.128E+02	2.70
2	5.37	5.42	5.39	5.34	5.35	5.34	5.37	1.940E+03	6.391E+02	3.04
3	5.82	5.86	5.93	5.93	5.89	5.86	5.88	1.981E+03	5.797E+02	3.42
4	6.14	6.11	6.20	6.05	6.10	6.22	6.14	1.910E+03	5.390E+02	3.54
5	7.60	7.75	7.95	7.70	7.78	8.06	7.81	1.939E+03	3.813E+02	5.09

Data Set Number = 18

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
12.46	11.52	.59	2.13	2.18	8.19	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.88	5.04	4.88	4.85	4.91	5.04	4.93	1.925E+03	7.098E+02	2.71
2	5.39	5.42	5.39	5.36	5.37	5.34	5.38	1.938E+03	6.396E+02	3.03
3	5.80	5.88	5.96	5.91	5.88	5.90	5.89	1.970E+03	5.803E+02	3.41
4	6.15	6.08	6.22	6.11	6.15	6.19	6.15	1.907E+03	5.301E+02	3.54
5	7.59	7.75	7.94	7.68	7.78	8.03	7.80	1.936E+03	3.827E+02	5.06

Data Set Number = 19

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
12.75	12.06	.61	2.27	2.10	8.47	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.17	4.50	4.28	4.17	4.34	4.48	4.32	1.120E+03	5.397E+02	2.07
2	4.70	4.72	4.94	4.82	4.97	4.99	4.86	1.130E+03	4.558E+02	2.48
3	5.63	5.50	5.28	5.70	5.52	5.28	5.48	1.157E+03	3.886E+02	2.98
4	5.75	5.83	5.81	5.36	5.42	5.94	5.69	1.114E+03	3.648E+02	3.05
5	6.67	6.81	6.92	6.61	6.70	6.99	6.79	1.131E+03	2.813E+02	4.02

Data Set Number = 20

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
12.76	12.08	.61	2.27	2.10	8.49	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.16	4.49	4.30	4.17	4.37	4.49	4.33	1.118E+03	5.366E+02	2.08
2	4.73	4.74	4.95	4.84	4.94	4.99	4.86	1.128E+03	4.531E+02	2.49
3	5.62	5.51	5.30	5.69	5.51	5.29	5.49	1.152E+03	3.865E+02	2.98
4	5.76	5.83	5.83	5.40	5.42	5.96	5.70	1.112E+03	3.627E+02	3.07
5	6.71	6.84	6.97	6.64	6.72	7.01	6.82	1.129E+03	2.784E+02	4.05

NOTE 20 X-Y pairs were stored in plot data file PDSMD74

Disk number = 14  
 File name = DSM075  
 This data set taken on 03-03-10 19:20

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	6.83	5.25	1.35	2.28	2.30	4.48	2.29

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	28.25	30.90	26.39	27.72	28.02	30.48	28.96	6.252E+04	3.152E+03	26.18
2	29.33	29.87	30.74	30.32	29.91	29.22	29.90	8.238E+04	3.052E+03	26.99
3	33.32	35.48	33.97	33.99	35.54	33.08	34.23	8.336E+04	2.673E+03	31.19
4	31.63	31.88	33.03	30.30	29.75	32.61	31.53	8.065E+04	2.842E+03	28.38
5	39.61	39.33	39.13	36.89	38.99	40.50	39.08	8.175E+04	2.284E+03	35.78

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	6.77	5.23	1.35	2.30	2.34	4.45	2.32

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	28.26	30.84	26.37	27.71	27.89	30.49	28.92	8.255E+04	3.161E+03	26.11
2	29.45	29.87	30.75	30.40	29.86	29.21	29.92	8.238E+04	3.053E+03	26.99
3	33.06	35.34	34.14	33.71	35.58	33.28	34.18	8.338E+04	2.680E+03	31.11
4	31.66	31.67	33.01	30.51	30.01	32.57	31.57	8.064E+04	2.841E+03	28.38
5	39.69	39.48	39.30	37.14	39.14	40.61	39.22	8.175E+04	2.277E+03	35.90

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	6.25	5.07	1.28	2.16	2.18	4.20	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	24.74	26.98	25.14	24.23	24.49	26.57	25.36	7.257E+04	3.190E+03	22.75
2	25.69	25.92	26.54	26.25	25.61	25.44	25.91	7.244E+04	3.126E+03	23.17
3	27.72	29.24	26.43	26.19	29.28	27.65	28.42	7.327E+04	2.868E+03	25.55
4	26.85	27.12	27.86	25.81	25.43	27.96	26.85	7.090E+04	2.971E+03	23.86
5	34.77	34.47	34.08	32.39	34.22	35.42	34.23	7.189E+04	2.311E+03	31.11

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	6.25	5.04	1.27	2.16	2.19	4.19	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	24.94	27.19	25.39	24.56	24.81	26.77	25.61	7.266E+04	3.159E+03	23.00
2	25.91	26.15	26.89	26.40	26.00	25.66	26.17	7.251E+04	3.095E+03	23.43
3	28.17	29.71	26.63	28.70	29.94	28.10	28.91	7.310E+04	2.808E+03	26.03
4	27.37	27.44	28.37	26.18	25.82	28.31	27.25	7.069E+04	2.913E+03	24.26
5	35.06	34.72	34.52	32.55	34.45	35.65	34.52	7.169E+04	2.283E+03	31.40

Data Set Number = 5

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	6.25	5.25	1.36	2.11	2.18	4.29	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.84	20.63	18.77	17.75	17.93	20.31	18.87	5.387E+04	3.287E+03	16.39
2	18.51	18.56	19.19	18.41	18.22	18.57	18.58	5.379E+04	3.369E+03	15.97
3	18.91	18.60	18.63	19.03	18.96	18.62	18.79	5.446E+04	3.393E+03	16.05
4	19.87	19.78	20.05	18.66	18.56	20.72	19.61	5.269E+04	3.147E+03	16.75
5	27.84	27.12	26.20	24.58	26.36	27.38	26.58	5.344E+04	2.266E+03	23.59

Data Set Number = 6

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	6.26	5.28	1.37	2.10	2.17	4.30	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	17.94	20.72	18.88	17.84	18.06	20.41	18.97	5.399E+04	3.272E+03	16.50
2	18.60	18.66	19.28	18.51	18.33	18.63	18.67	5.390E+04	3.355E+03	16.07
3	18.98	18.74	18.78	19.20	19.15	18.74	18.93	5.458E+04	3.370E+03	16.20
4	19.92	19.86	20.14	18.79	18.66	20.61	19.70	5.280E+04	3.135E+03	16.84
5	27.73	27.06	26.22	24.63	26.34	27.41	26.57	5.354E+04	2.271E+03	23.58

Data Set Number = 7

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	7.28	6.48	1.56	2.17	2.19	5.11	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.05	14.22	13.21	13.24	11.88	13.98	12.89	3.251E+04	3.100E+03	10.49
2	12.39	13.34	13.90	13.19	12.95	13.62	13.40	3.251E+04	2.993E+03	10.86
3	13.96	13.68	13.87	14.30	14.22	13.95	14.03	3.294E+04	2.899E+03	11.36
4	15.04	14.55	14.94	14.37	14.35	15.40	14.77	3.186E+04	2.660E+03	11.98
5	19.94	19.83	19.29	18.59	19.66	20.28	19.60	3.233E+04	1.939E+03	16.68

Data Set Number = 8

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	7.30	6.49	1.55	2.16	2.16	5.11	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)		(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.01	14.16	12.98	13.24	11.66	13.91	12.66	3.261E+04	3.117E+03	10.46
2	13.28	12.35	13.92	13.17	12.95	13.61	13.40	3.254E+04	2.994E+03	10.87
3	13.94	13.65	13.90	14.29	14.20	13.96	14.02	3.299E+04	2.902E+03	11.37
4	15.02	14.53	14.92	14.34	14.36	15.40	14.76	3.191E+04	2.663E+03	11.98
5	19.99	19.92	19.35	18.47	19.64	20.40	19.63	3.236E+04	1.936E+03	16.72

Data Set Number = 9

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav			
	7.01	5.65	1.99	2.26	2.28	4.63	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.70	11.01	10.22	9.73	9.61	10.73	10.17	1.783E+04	2.301E+03	7.75
2	10.51	10.55	10.72	10.25	10.00	10.45	10.41	1.781E+04	2.264E+03	7.86
3	10.71	10.90	11.44	11.09	11.03	11.32	11.09	1.806E+04	2.147E+03	8.41
4	11.52	11.02	11.30	11.52	11.54	11.70	11.45	1.747E+04	2.020E+03	8.65
5	14.55	14.85	14.88	14.39	14.95	15.51	14.86	1.772E+04	1.886E+03	11.92

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.00	5.89	.88	2.26	2.28	4.59	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.72	11.10	10.24	9.77	9.55	10.81	10.20	1.771E+04	2.275E+03	7.78
2	10.50	10.55	10.70	10.25	10.02	10.46	10.41	1.770E+04	2.249E+03	7.87
3	10.70	10.92	11.44	11.07	11.07	11.29	11.08	1.794E+04	2.134E+03	8.41
4	11.52	10.96	11.34	11.51	11.49	11.64	11.41	1.737E+04	2.016E+03	8.61
5	14.50	14.81	14.72	14.24	14.83	15.37	14.75	1.752E+04	1.491E+03	11.82

Data Set Number = 11

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.97	5.83	.74	2.10	2.18	4.51	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.33	9.00	8.55	8.35	8.15	8.80	8.53	1.208E+04	1.926E+03	6.27
2	8.94	9.04	9.98	8.61	8.49	8.76	8.81	1.207E+04	1.881E+03	6.42
3	9.18	9.19	9.85	9.52	9.33	9.71	9.46	1.226E+04	1.765E+03	6.94
4	9.76	9.48	9.67	9.96	9.92	9.97	9.79	1.185E+04	1.658E+03	7.15
5	11.83	12.15	12.06	11.83	12.16	12.51	12.09	1.202E+04	1.290E+03	9.31

Data Set Number = 12

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.99	5.84	.77	2.10	2.19	4.53	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.39	9.01	8.60	8.39	8.25	8.82	8.58	1.206E+04	1.911E+03	6.31
2	9.02	9.10	9.02	8.66	8.52	8.78	8.85	1.205E+04	1.869E+03	6.45
3	9.24	9.27	9.90	9.54	9.40	9.75	9.52	1.224E+04	1.751E+03	6.99
4	9.80	9.48	9.70	9.97	9.95	9.98	9.81	1.182E+04	1.651E+03	7.16
5	11.82	12.11	12.07	11.87	12.21	12.50	12.10	1.200E+04	1.289E+03	9.31

Data Set Number = 13

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.04	5.80	.68	2.05	2.23	4.51	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.17	7.86	7.34	7.18	7.12	7.75	7.40	8.349E+03	1.617E+03	5.16
2	7.76	7.67	7.88	7.62	7.54	7.69	7.73	8.353E+03	1.559E+03	5.36
3	8.23	8.25	8.58	8.54	8.37	8.46	8.40	8.491E+03	1.438E+03	5.91
4	8.50	8.36	8.52	8.81	8.61	8.71	8.55	8.203E+03	1.384E+03	5.93
5	10.07	10.36	10.36	10.10	10.30	10.68	10.31	8.326E+03	1.102E+03	7.55

Data Set Number = 14

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.05	5.81	.68	2.05	2.23	4.52	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.24	7.78	7.37	7.25	7.13	7.68	7.41	8.327E+03	1.612E+03	5.17
2	7.81	7.91	7.87	7.63	7.52	7.67	7.74	8.339E+03	1.553E+03	5.37
3	8.20	8.24	8.61	8.48	8.36	8.48	8.40	8.487E+03	1.439E+03	5.90
4	8.51	8.34	8.52	8.62	8.63	8.70	8.55	8.206E+03	1.385E+03	5.92
5	10.05	10.31	10.31	10.07	10.27	10.64	10.28	8.326E+03	1.107E+03	7.52

Date Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.43	6.17	.69	2.15	2.28	4.76	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.33	6.72	6.33	6.34	6.18	6.66	6.43	5.448E+03	1.321E+03	4.12
2	6.77	6.85	6.83	6.69	6.72	6.79	6.77	5.461E+03	1.258E+03	4.34
3	7.23	7.23	7.43	7.44	7.30	7.34	7.33	5.555E+03	1.165E+03	4.77
4	7.45	7.38	7.50	7.51	7.52	7.65	7.50	5.363E+03	1.114E+03	4.81
5	8.73	8.98	9.00	8.68	8.80	9.21	8.90	5.443E+03	8.950E+02	6.08

Date Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.45	6.19	.71	2.14	2.29	4.78	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.22	6.87	6.29	6.25	6.15	6.81	6.43	5.432E+03	1.315E+03	4.13
2	6.69	6.76	6.84	6.65	6.76	6.84	6.76	5.441E+03	1.258E+03	4.33
3	7.29	7.21	7.36	7.49	7.27	7.27	7.31	5.536E+03	1.165E+03	4.75
4	7.42	7.39	7.49	7.42	7.45	7.67	7.47	5.347E+03	1.118E+03	4.78
5	8.66	8.90	8.92	8.61	8.74	9.13	8.83	5.427E+03	9.033E+02	6.01

Date Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.62	6.27	.64	2.21	2.23	4.84	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.33	5.52	5.25	5.32	5.23	5.47	5.35	3.121E+03	1.021E+03	3.06
2	5.66	5.71	5.67	5.57	5.64	5.67	5.65	3.135E+03	9.700E+02	3.23
3	6.17	6.12	6.18	6.31	6.13	6.11	6.17	3.197E+03	8.839E+02	3.62
4	6.40	6.41	6.46	6.33	6.35	6.60	6.43	3.083E+03	8.226E+02	3.75
5	7.14	7.33	7.36	7.13	7.21	7.48	7.27	3.129E+03	7.005E+02	4.47

Date Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.64	6.30	.64	2.22	2.23	4.86	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.35	5.50	5.25	5.32	5.25	5.46	5.36	3.130E+03	1.022E+03	3.06
2	5.69	5.74	5.65	5.58	5.62	5.66	5.66	3.143E+03	9.724E+02	3.23
3	6.16	6.12	6.21	6.29	6.14	6.12	6.17	3.203E+03	8.848E+02	3.62
4	6.41	6.38	6.47	6.30	6.38	6.60	6.43	3.091E+03	8.237E+02	3.75
5	7.15	7.33	7.38	7.16	7.23	7.49	7.29	3.138E+03	7.007E+02	4.48

Date Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.37	6.69	.90	2.31	2.26	5.38	2.28			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.45	4.68	4.45	4.43	4.50	4.63	4.53	1.449E+03	6.642E+02	2.18
2	4.81	4.85	5.01	4.88	5.04	5.09	4.95	1.460E+03	5.985E+02	2.47
3	5.42	5.29	5.24	5.50	5.31	5.19	5.32	1.492E+03	5.486E+02	2.72
4	5.55	5.52	5.62	5.40	5.42	5.66	5.53	1.437E+03	5.146E+02	2.79
5	5.92	6.02	6.10	5.83	6.00	6.16	6.00	1.459E+03	4.623E+02	3.16

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.48	6.94	.92	2.32	2.31	5.44	2.31			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.45	4.69	4.48	4.45	4.51	4.65	4.54	1.444E+03	6.677E+02	2.16
2	4.83	4.88	5.01	4.88	5.04	5.09	4.96	1.455E+03	5.935E+02	2.45
3	5.46	5.31	5.26	5.53	5.35	5.24	5.36	1.488E+03	5.456E+02	2.73
4	5.59	5.54	5.66	5.45	5.48	5.70	5.57	1.433E+03	5.104E+02	2.81
5	5.93	6.08	6.16	6.00	6.07	6.22	6.08	1.455E+03	4.567E+02	3.19

NOTE: 20 X-Y pairs were stored in plot data file PDSMD75

Disk number = 14

File name: DMSD76

This data set taken on : 03:03:11:43:26

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	4.61	3.65	1.49	2.18	2.32	3.25	2.25			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.91	19.15	17.60	16.82	16.84	16.86	17.70	4.737E+04	3.129E+03	15.14
2	17.63	17.72	17.97	17.37	16.78	17.28	17.46	4.728E+04	3.199E+03	14.78
3	18.26	18.54	18.73	18.47	18.87	18.38	18.54	4.788E+04	3.044E+03	15.73
4	19.43	19.20	19.71	18.53	18.43	20.12	19.24	4.631E+04	2.840E+03	16.30
5	23.76	23.44	23.15	21.88	23.52	24.13	23.31	4.696E+04	2.319E+03	20.25

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	4.56	3.63	1.51	2.20	2.33	3.23	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	16.81	19.15	17.52	16.80	16.67	18.90	17.64	4.746E+04	3.149E+03	15.07
2	17.50	17.56	17.88	17.22	16.75	17.25	17.36	4.738E+04	3.231E+03	14.66
3	18.16	18.33	18.40	18.37	18.69	18.14	18.35	4.797E+04	3.092E+03	15.52
4	19.36	19.14	19.57	18.46	18.34	20.06	19.15	4.637E+04	2.861E+03	16.20
5	23.62	23.27	23.03	21.76	23.44	24.00	23.19	4.706E+04	2.340E+03	20.11

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	4.76	3.57	1.57	2.13	2.18	3.30	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.07	14.01	12.85	12.11	12.08	13.73	12.81	3.158E+04	3.027E+03	10.43
2	12.56	12.52	13.22	12.62	12.29	12.91	12.69	3.153E+04	3.095E+03	10.19
3	13.49	13.52	13.13	13.85	13.86	13.19	13.51	3.193E+04	2.937E+03	10.87
4	14.62	14.35	14.60	13.80	13.76	15.13	14.38	3.088E+04	2.658E+03	11.62
5	17.14	17.10	16.76	16.19	17.31	17.56	17.01	3.135E+04	2.220E+03	14.12

Data Set Number = 4

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	4.79	3.59	1.61	2.16	2.20	3.33	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	12.03	14.08	12.87	12.12	11.96	13.83	12.82	3.166E+04	3.039E+03	10.42
2	12.60	12.66	13.23	12.64	12.35	12.96	12.72	3.161E+04	3.100E+03	10.20
3	13.52	13.58	13.14	13.88	13.89	13.21	13.54	3.202E+04	2.943E+03	10.88
4	14.64	14.36	14.65	13.79	13.73	15.18	14.39	3.097E+04	2.667E+03	11.61
5	17.19	17.19	16.78	16.16	17.31	17.59	17.04	3.143E+04	2.225E+03	14.12

Data Set Number = 5

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	5.03	4.53	1.61	2.15	2.15	3.73	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.23	9.38	8.73	8.27	8.20	9.11	8.65	1.666E+04	2.618E+03	6.36
2	8.82	8.81	9.02	8.71	8.51	8.98	8.81	1.664E+04	2.604E+03	6.39
3	9.31	9.25	9.38	9.66	9.46	9.32	9.40	1.689E+04	2.466E+03	6.85
4	9.80	9.68	9.69	9.48	9.41	10.31	9.73	1.633E+04	2.315E+03	7.05
5	11.45	11.74	10.96	10.82	11.24	11.38	11.27	1.656E+04	1.957E+03	8.46

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	5.09	4.57	1.61	2.15	2.14	3.76	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.21	9.37	8.72	8.27	8.13	9.03	8.63	1.667E+04	2.628E+03	6.34
2	8.80	8.80	9.01	8.71	8.57	8.98	8.81	1.667E+04	2.606E+03	6.40
3	9.29	9.26	9.31	9.62	9.42	9.29	9.37	1.690E+04	2.477E+03	6.82
4	9.78	9.62	9.62	9.45	9.38	10.25	9.69	1.634E+04	2.329E+03	7.01
5	11.36	11.57	10.87	10.76	11.20	11.33	11.18	1.658E+04	1.979E+03	8.38

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.10	4.97	.94	2.26	2.19	4.01	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.48	8.33	7.90	7.47	7.55	8.11	7.81	1.137E+04	2.079E+03	5.47
2	7.97	8.00	8.23	8.04	7.84	8.18	8.04	1.137E+04	2.039E+03	5.58
3	8.75	8.64	8.83	9.00	8.91	8.71	8.84	1.154E+04	1.848E+03	6.24
4	9.52	9.31	9.44	9.16	9.06	9.70	9.37	1.116E+04	1.680E+03	6.64
5	11.35	11.54	11.29	10.78	11.10	11.63	11.28	1.132E+04	1.343E+03	8.43

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidev			
	6.19	4.89	.92	2.27	2.19	4.00	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdc	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.42	8.29	7.82	7.41	7.53	8.10	7.76	1.134E+04	2.093E+03	5.42
2	7.94	7.94	8.12	7.90	7.72	8.05	7.95	1.134E+04	2.073E+03	5.47
3	8.60	8.66	8.69	8.94	8.75	8.62	8.71	1.151E+04	1.866E+03	6.10
4	9.27	9.21	9.26	9.10	9.05	9.67	9.30	1.112E+04	1.694E+03	6.57
5	11.29	11.57	11.32	10.80	11.09	11.65	11.29	1.129E+04	1.340E+03	8.42

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.78	4.31	.73	2.17	2.10	3.61	2.13

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	6.41	7.36	6.90	6.39	6.68	7.22	6.83	7.917E+03	1.723E+03	4.59
2	6.93	6.97	7.41	7.12	7.25	7.41	7.18	7.925E+03	1.644E+03	4.82
3	7.95	7.76	7.65	8.16	7.85	7.55	7.82	8.053E+03	1.511E+03	5.33
4	8.47	8.53	8.50	8.12	8.05	8.89	8.43	7.782E+03	1.340E+03	5.81
5	10.12	10.34	10.24	9.39	9.64	10.52	10.04	7.893E+03	1.082E+03	7.30

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.76	4.34	.74	2.15	2.11	3.61	2.13

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	6.44	7.41	6.88	6.40	6.68	7.28	6.85	7.905E+03	1.710E+03	4.62
2	6.91	6.94	7.45	7.12	7.32	7.46	7.20	7.910E+03	1.633E+03	4.85
3	7.98	7.87	7.63	8.21	7.90	7.55	7.86	8.049E+03	1.498E+03	5.37
4	8.56	8.57	8.57	8.10	8.04	8.89	8.45	7.776E+03	1.331E+03	5.84
5	10.20	10.43	10.27	9.41	9.67	10.59	10.10	7.892E+03	1.073E+03	7.35

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.65	4.35	.74	2.28	2.23	3.58	2.25

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	5.65	6.57	6.07	5.64	5.90	6.47	6.06	4.939E+03	1.324E+03	3.73
2	5.97	6.04	6.47	6.28	6.52	6.56	6.31	4.952E+03	1.289E+03	3.84
3	6.93	6.84	6.55	7.12	6.88	6.49	6.80	5.046E+03	1.208E+03	4.21
4	7.32	7.35	7.39	6.94	6.92	7.61	7.26	4.870E+03	1.074E+03	4.53
5	8.21	8.40	8.41	7.84	8.01	8.60	8.24	4.943E+03	9.165E+02	5.39

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.67	4.39	.76	2.29	2.23	3.61	2.26

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	5.67	6.56	6.02	5.68	5.93	6.41	6.05	4.942E+03	1.335E+03	3.70
2	5.99	6.06	6.46	6.29	6.50	6.55	6.31	4.956E+03	1.292E+03	3.83
3	6.92	6.61	6.54	7.10	6.85	6.49	6.79	5.048E+03	1.207E+03	4.18
4	7.32	7.34	7.40	6.96	6.95	7.62	7.26	4.871E+03	1.074E+03	4.53
5	8.23	8.43	8.43	7.87	8.03	8.61	8.27	4.944E+03	9.144E+02	5.41

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.63	4.67	.69	2.13	2.23	3.73	2.18

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
#	1	2	3	4	5	6				
1	4.68	5.45	5.05	4.68	5.01	5.41	5.05	2.889E+03	1.034E+03	2.79
2	4.89	4.91	5.48	5.24	5.54	5.59	5.27	2.901E+03	1.004E+03	2.89
3	5.96	5.69	5.74	6.10	5.70	5.32	5.69	2.960E+03	9.326E+02	3.17
4	6.05	6.18	6.16	5.72	5.70	6.38	6.04	2.857E+03	8.417E+02	3.39
5	6.70	6.65	6.83	5.42	6.51	6.94	6.71	2.897E+03	7.358E+02	3.94

Data Set Number = 14

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	5.85	4.68	.72	2.07	2.23	3.75	2.15			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.63	5.51	5.00	4.63	5.00	5.48	5.04	2.888E+03	1.025E+03	2.82
2	4.84	4.86	5.46	5.24	5.47	5.53	5.23	2.903E+03	1.008E+03	2.88
3	5.94	5.67	5.32	6.05	5.72	5.29	5.67	2.960E+03	9.285E+02	3.19
4	6.08	6.18	6.16	5.69	5.66	6.38	6.02	2.855E+03	8.385E+02	3.42
5	6.77	6.92	6.87	6.35	6.47	6.97	6.72	2.897E+03	7.267E+02	3.99

Data Set Number = 15

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldv			
	6.23	4.98	.74	2.23	2.33	3.98	2.28			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	3.93	4.14	4.02	3.91	4.05	4.12	4.03	1.331E+03	7.903E+02	1.68
2	4.12	4.15	4.34	4.29	4.31	4.35	4.26	1.342E+03	7.523E+02	1.78
3	4.68	4.62	4.45	4.74	4.65	4.42	4.59	1.374E+03	6.907E+02	1.99
4	4.92	4.83	4.99	4.76	4.75	4.99	4.87	1.323E+03	6.175E+02	2.14
5	5.17	5.28	5.35	5.13	5.21	5.40	5.26	1.342E+03	5.597E+02	2.40

Data Set Number = 16

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldv			
	6.26	4.99	.74	2.17	2.33	4.00	2.25			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	3.92	4.17	4.04	3.91	4.07	4.15	4.04	1.332E+03	7.707E+02	1.73
2	4.12	4.15	4.37	4.31	4.27	4.39	4.28	1.346E+03	7.313E+02	1.84
3	4.71	4.64	4.47	4.77	4.68	4.45	4.62	1.374E+03	6.716E+02	2.05
4	4.93	4.85	5.02	4.78	4.78	5.01	4.90	1.323E+03	6.029E+02	2.20
5	5.19	5.30	5.36	5.16	5.22	5.43	5.27	1.345E+03	5.502E+02	2.44

NOTE 16 X-Y pairs were stored in plot data file PDSMD76

Disk number = 15

File name DFND77

This data set taken on - 03.28.19.05 31

Data Set Number = 1

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Tldav			
	17.10	17.06	1.86	2.13	2.12	12.00	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	10.65	10.85	14.59	12.66	15.84	19.71	14.05	9.470E+04	8.463E+03	11.19
2	12.97	13.55	15.37	17.24	16.74	26.75	17.10	9.456E+04	6.705E+03	14.11
3	14.04	14.13	17.39	30.21	30.01	27.17	23.49	9.401E+04	4.614E+03	20.38
4	12.47	12.31	37.76	26.84	32.81	30.13	25.39	9.332E+04	4.214E+03	22.15
5	11.33	15.52	19.64	22.39	21.19	20.18	18.41	9.342E+04	6.211E+03	15.04

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
17.05	16.98	1.86	2.13	2.12	11.96	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.68	10.82	14.58	12.65	15.85	19.69	14.05	9.458E+04	8.456E+03	11.18
2	12.95	13.53	15.35	17.22	16.73	26.71	17.08	9.449E+04	6.705E+03	14.09
3	14.03	14.12	17.37	30.18	37.97	27.13	23.47	9.387E+04	4.613E+03	20.35
4	12.46	12.29	37.74	26.83	32.79	30.22	25.39	9.318E+04	4.207E+03	22.15
5	11.33	15.51	19.81	22.38	21.17	20.17	18.40	9.329E+04	6.208E+03	15.03

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
17.47	17.04	1.82	2.13	2.11	12.11	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.47	9.79	12.60	11.26	13.49	16.40	12.17	7.192E+04	7.590E+03	9.48
2	11.41	11.87	13.43	14.85	14.42	21.46	14.57	7.186E+04	6.114E+03	11.75
3	12.37	12.23	14.98	25.05	30.57	22.30	19.58	7.135E+04	4.289E+03	16.64
4	11.12	11.00	30.71	22.66	27.16	25.24	21.31	7.090E+04	3.887E+03	18.24
5	10.30	13.52	16.86	18.91	17.93	17.19	15.79	7.089E+04	5.632E+03	12.59

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
17.51	17.05	1.83	2.12	2.12	12.13	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.45	9.79	12.59	11.25	13.52	16.40	12.17	7.187E+04	7.585E+03	9.48
2	11.42	11.87	13.43	14.83	14.44	21.47	14.57	7.179E+04	6.107E+03	11.76
3	12.37	12.22	14.98	25.05	30.57	22.31	19.58	7.131E+04	4.286E+03	16.64
4	11.12	10.99	30.71	22.65	27.18	25.25	21.32	7.088E+04	3.885E+03	18.25
5	10.32	13.53	16.88	18.93	17.94	17.20	15.80	7.089E+04	5.626E+03	12.60

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.43	14.55	1.93	2.26	2.26	10.97	2.26

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.79	8.07	9.77	9.09	10.26	12.06	9.50	4.414E+04	6.425E+03	6.87
2	9.17	9.47	10.52	11.37	11.13	14.90	11.09	4.414E+04	5.299E+03	8.33
3	9.96	9.70	11.54	17.76	20.99	16.08	14.34	4.384E+04	3.831E+03	11.45
4	9.22	9.17	21.65	16.75	19.66	18.22	15.78	4.354E+04	3.412E+03	12.76
5	8.83	10.80	12.90	14.25	13.67	13.29	12.29	4.352E+04	4.760E+03	9.14

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.33	14.40	1.94	2.28	2.27	10.89	2.27

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.77	8.08	9.79	9.08	10.30	12.10	9.52	4.412E+04	6.418E+03	6.87
2	9.18	9.47	10.53	11.38	11.13	14.90	11.10	4.410E+04	5.299E+03	8.32
3	9.97	9.70	11.56	17.78	20.99	16.06	14.34	4.384E+04	3.832E+03	11.44
4	9.22	9.17	21.65	16.77	19.68	18.22	15.78	4.352E+04	3.412E+03	12.75
5	8.64	10.81	12.93	14.26	13.66	13.28	12.30	4.351E+04	4.761E+03	9.14

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.77	13.96	1.90	2.28	2.27	10.55	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.57	6.81	7.94	7.50	8.22	9.51	7.76	3.011E+04	5.779E+03	5.21
2	7.65	7.83	8.51	9.07	8.97	11.36	8.90	3.011E+04	4.840E+03	6.22
3	8.36	8.08	9.42	13.64	15.83	12.62	11.33	2.991E+04	3.510E+03	8.52
4	8.04	8.04	16.82	13.56	15.41	14.28	12.69	2.970E+04	3.044E+03	9.76
5	7.81	9.09	10.55	11.48	11.14	11.02	10.18	2.968E+04	4.169E+03	7.12

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.75	13.93	1.90	2.28	2.28	10.53	2.28

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.58	6.78	7.95	7.54	8.22	9.52	7.77	3.006E+04	5.764E+03	5.22
2	7.65	7.84	8.53	9.13	9.00	11.38	8.92	3.007E+04	4.817E+03	6.24
3	8.38	8.09	9.42	13.70	15.88	12.63	11.35	2.987E+04	3.497E+03	8.54
4	8.03	8.04	16.82	13.56	15.40	14.27	12.68	2.967E+04	3.043E+03	9.75
5	7.82	9.09	10.54	11.47	11.13	11.01	10.18	2.965E+04	4.169E+03	7.11

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.53	13.45	1.81	2.23	2.24	10.26	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.57	5.71	6.47	6.22	6.63	7.54	6.36	2.048E+04	5.224E+03	3.92
2	6.41	6.54	6.93	7.32	7.26	8.81	7.21	2.049E+04	4.411E+03	4.65
3	7.01	6.79	7.74	10.62	12.11	9.97	9.04	2.038E+04	3.213E+03	6.34
4	6.95	7.01	13.21	11.09	12.15	11.21	10.27	2.023E+04	2.715E+03	7.45
5	6.07	7.71	8.69	9.41	9.19	9.14	8.50	2.021E+04	3.641E+03	5.55

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.52	13.43	1.79	2.21	2.22	10.25	2.22

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.52	5.67	6.43	6.20	6.61	7.53	6.33	2.046E+04	5.239E+03	3.91
2	6.41	6.52	6.92	7.31	7.26	8.80	7.20	2.048E+04	4.402E+03	4.65
3	6.99	6.76	7.75	10.63	12.11	9.97	9.03	2.037E+04	3.205E+03	6.36
4	6.92	6.99	13.19	11.09	12.13	11.21	10.25	2.022E+04	2.714E+03	7.45
5	6.04	7.66	8.69	9.38	9.18	9.14	8.48	2.020E+04	3.640E+03	5.55

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.26	13.78	1.72	2.13	2.15	10.16	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.71	4.83	5.32	5.20	5.42	6.03	5.25	1.365E+04	4.615E+03	2.96
2	5.41	5.49	5.72	6.00	5.97	6.96	5.93	1.368E+04	3.905E+03	3.50
3	5.89	5.72	6.36	6.30	6.31	7.94	7.26	1.362E+04	2.895E+03	4.70
4	5.94	6.02	10.23	9.02	9.55	6.85	8.28	1.350E+04	2.409E+03	5.61
5	6.09	6.63	7.29	7.62	7.70	7.66	7.20	1.350E+04	3.075E+03	4.39

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.37	13.36	1.71	2.12	2.14	10.14	2.13			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.72	4.83	5.33	5.18	5.42	6.04	5.25	1.366E+04	4.605E+03	2.97
2	5.42	5.49	5.71	5.98	5.95	6.98	5.92	1.369E+04	3.905E+03	3.51
3	5.87	5.72	6.39	8.32	9.32	7.95	7.26	1.363E+04	2.889E+03	4.72
4	5.93	6.02	10.32	9.00	9.57	8.84	8.28	1.352E+04	2.410E+03	5.61
5	6.07	6.61	7.30	7.82	7.71	7.65	7.19	1.351E+04	3.076E+03	4.39

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.31	13.38	1.67	2.11	2.13	10.12	2.12			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.20	4.32	4.65	4.52	4.71	5.15	4.59	9.618E+03	4.101E+03	2.35
2	4.78	4.82	4.98	5.17	5.13	5.82	5.12	9.647E+03	3.520E+03	2.74
3	5.15	5.04	5.55	6.90	7.60	6.66	6.15	9.617E+03	2.638E+03	3.64
4	5.27	5.38	8.49	7.57	7.88	7.33	6.99	9.530E+03	2.189E+03	4.35
5	5.60	5.98	6.49	6.87	6.79	6.71	6.41	9.518E+03	2.612E+03	3.64

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.30	13.38	1.68	2.11	2.13	10.12	2.12			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.20	4.31	4.65	4.53	4.72	5.15	4.59	9.623E+03	4.098E+03	2.35
2	4.77	4.81	4.98	5.17	5.14	5.82	5.11	9.652E+03	3.521E+03	2.74
3	5.16	5.05	5.54	6.89	7.60	6.65	6.15	9.622E+03	2.638E+03	3.65
4	5.29	5.39	8.49	7.57	7.86	7.31	6.99	9.533E+03	2.189E+03	4.36
5	5.59	5.96	6.49	6.86	6.79	6.70	6.40	9.523E+03	2.617E+03	3.64

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.40	13.58	1.73	2.17	2.19	10.23	2.18			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	3.81	3.90	4.12	4.05	4.17	4.41	4.08	6.083E+03	3.381E+03	1.80
2	4.25	4.27	4.34	4.40	4.46	4.89	4.45	6.112E+03	2.991E+03	2.04
3	4.55	4.46	4.79	5.61	6.11	5.55	5.18	6.101E+03	2.307E+03	2.64
4	4.75	4.80	6.81	6.19	6.39	5.99	5.82	6.039E+03	1.910E+03	3.16
5	5.19	5.47	5.80	6.06	5.98	5.93	5.74	6.034E+03	2.047E+03	2.95

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.42	13.58	1.73	2.17	2.20	10.24	2.19			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	3.82	3.89	4.12	4.05	4.17	4.41	4.08	6.073E+03	3.392E+03	1.79
2	4.25	4.27	4.35	4.48	4.46	4.90	4.45	6.104E+03	2.997E+03	2.04
3	4.55	4.45	4.78	5.62	6.11	5.55	5.18	6.091E+03	2.314E+03	2.63
4	4.75	4.80	6.79	6.19	6.39	5.99	5.82	6.034E+03	1.918E+03	3.15
5	5.19	5.46	5.79	6.05	5.98	5.93	5.73	6.025E+03	2.056E+03	2.93

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.66	13.68	1.69	2.15	2.14	10.35	2.14

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.25	3.28	3.37	3.36	3.41	3.50	3.36	2.780E+03	2.434E+03	1.14
2	3.53	3.51	3.53	3.59	3.60	3.82	3.60	2.803E+03	2.248E+03	1.25
3	3.80	3.69	3.87	4.24	4.46	4.22	4.05	2.805E+03	1.788E+03	1.57
4	4.15	4.06	5.00	4.72	4.82	4.59	4.56	2.774E+03	1.423E+03	1.95
5	4.62	4.77	4.96	5.07	5.03	4.99	4.91	2.770E+03	1.277E+03	2.17

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.69	13.79	1.70	2.15	2.16	10.39	2.16

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	3.27	3.29	3.37	3.36	3.43	3.51	3.37	2.784E+03	2.441E+03	1.14
2	3.53	3.53	3.55	3.61	3.61	3.84	3.61	2.807E+03	2.246E+03	1.25
3	3.82	3.71	3.87	4.24	4.47	4.22	4.05	2.808E+03	1.796E+03	1.56
4	4.19	4.10	5.00	4.73	4.83	4.60	4.57	2.778E+03	1.420E+03	1.96
5	4.63	4.79	4.97	5.09	5.04	4.99	4.92	2.773E+03	1.276E+03	2.17

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.28	15.21	1.59	2.10	2.10	11.03	2.10

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	2.82	2.83	2.85	2.85	2.88	2.94	2.86	1.232E+03	1.771E+03	.70
2	3.05	3.04	3.06	3.05	3.05	3.17	3.07	1.249E+03	1.602E+03	.70
3	3.43	3.36	3.45	3.53	3.63	3.53	3.49	1.253E+03	1.172E+03	1.07
4	3.89	3.94	4.36	4.16	4.19	4.00	4.09	1.238E+03	8.050E+02	1.54
5	3.90	4.05	4.10	4.15	4.15	4.08	4.07	1.236E+03	8.899E+02	1.39

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
16.29	15.10	1.64	2.10	2.10	11.01	2.10

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	2.86	2.88	2.89	2.90	2.92	2.96	2.90	1.233E+03	1.682E+03	.73
2	3.10	3.08	3.09	3.11	3.10	3.21	3.11	1.248E+03	1.530E+03	.82
3	3.46	3.39	3.48	3.60	3.67	3.56	3.52	1.254E+03	1.142E+03	1.10
4	3.92	3.97	4.39	4.23	4.24	4.07	4.14	1.239E+03	7.840E+02	1.58
5	3.97	4.11	4.17	4.22	4.22	4.14	4.14	1.235E+03	8.492E+02	1.45

NOTE 20 X-Y pairs were stored in plot data file PDFND77

Dist number = 15

File name DFND78

This data set taken on 04 30 19 10 56

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.06	9.82	1.95	2.14	2.14	7.07	2.14

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	10.75	10.96	99.99	99.99	99.99	99.99	10.87	9.208E+04	1.149E+04	8.01

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.22	9.81	1.95	2.14	2.13	7.66	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.75	10.97	99.99	99.99	99.99	99.99	10.86	9.224E+04	1.152E+04	8.01

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.17	9.88	2.10	2.27	2.26	7.71	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.04	10.39	99.99	99.99	99.99	99.99	10.22	7.437E+04	1.010E+04	7.36

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.15	9.87	2.10	2.28	2.27	7.71	2.28

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.07	10.42	99.99	99.99	99.99	99.99	10.25	7.434E+04	1.007E+04	7.38

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.15	9.84	1.97	2.20	2.20	7.65	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.65	9.02	99.99	99.99	99.99	99.99	8.84	5.176E+04	8.336E+03	6.21

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.15	9.85	1.97	2.20	2.20	7.65	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.66	8.99	99.99	99.99	99.99	99.99	8.83	5.175E+04	8.351E+03	6.20

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.15	9.84	1.87	2.14	2.13	7.62	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.21	7.52	99.99	99.99	99.99	99.99	7.37	3.414E+04	6.930E+03	4.93

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.15	9.84	1.88	2.15	2.13	7.62	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.23	7.53	99.99	99.99	99.99	99.99	7.38	3.418E+04	6.915E+03	4.94

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.20	9.84	1.90	2.17	2.16	7.65	2.17	

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.33 6.57-99.99-99.99-99.99-99.99	6.45	2.258E+04	5.553E+03	4.07

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.19	9.84	1.91	2.18	2.17	7.65	2.18	

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.33 6.61-99.99-99.99-99.99-99.99	6.47	2.297E+04	5.640E+03	4.07

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.22	9.77	1.81	2.15	2.13	7.60	2.14	

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.51 5.70-99.99-99.99-99.99-99.99	5.60	1.400E+04	4.231E+03	3.31

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.23	9.78	1.88	2.16	2.15	7.63	2.15	

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.58 5.77-99.99-99.99-99.99-99.99	5.67	1.396E+04	4.158E+03	3.36

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.55	10.14	1.86	2.21	2.20	7.86	2.21	

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.17 5.27-99.99-99.99-99.99-99.99	5.22	9.421E+03	3.264E+03	2.89

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.60	10.17	1.86	2.21	2.19	7.88	2.20	

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.16 5.26-99.99-99.99-99.99-99.99	5.21	9.419E+03	3.262E+03	2.89

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	12.05	10.93	2.04	2.24	2.23	8.35	2.23	

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.03 5.06-99.99-99.99-99.99-99.99	5.04	5.805E+03	2.140E+03	2.71

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.16	11.03	2.12	2.27	2.26	8.43	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.09	5.13	99.99	99.99	99.99	99.99	5.11	5.804E+03	2.112E+03	2.75

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.29	11.41	1.92	2.28	2.26	8.54	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.54	4.55	99.99	99.99	99.99	99.99	4.54	3.356E+03	1.531E+03	2.19

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.33	11.45	1.97	2.30	2.27	8.59	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.60	4.61	99.99	99.99	99.99	99.99	4.61	3.351E+03	1.497E+03	2.24

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.42	11.68	1.80	2.25	2.22	8.63	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.00	4.13	99.99	99.99	99.99	99.99	4.10	1.466E+03	8.156E+02	1.80

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.42	11.68	1.85	2.25	2.23	8.65	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.12	4.18	99.99	99.99	99.99	99.99	4.15	1.465E+03	7.967E+02	1.84

NOTE: 20 X-Y pairs were stored in plot data file PDFND78

Dist number = 15

File name DFND79

This data set taken on 04 30 16 16 02

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.99	7.01	1.99	2.19	2.18	6.00	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	11.20	11.32	99.99	99.99	99.99	99.99	11.26	9.369E+04	1.122E+04	8.35
2	13.36	13.89	99.99	99.99	99.99	99.99	13.64	9.364E+04	8.835E+03	10.60

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.95	6.99	1.99	2.19	2.18	5.97	2.18

Tube #	Wall Temperatures (Deg C)	Tnave	Qdp	H	Thetab
#	1 2 3 4 5 6 (Deg C)	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	11.20 11.32-99.99-99.99-99.99-99.99	11.26	9.359E+04	1.121E+04	8.35
2	13.37 13.89-99.99-99.99-99.99-99.99	13.63	9.355E+04	8.832E+03	10.59

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.94	7.19	2.03	2.24	2.24	6.05	2.24

Tube #	Wall Temperatures (Deg C)	Tnave	Qdp	H	Thetab
#	1 2 3 4 5 6 (Deg C)	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.46 10.66-99.99-99.99-99.99-99.99	10.56	7.572E+04	9.808E+03	7.72
2	12.34 12.73-99.99-99.99-99.99-99.99	12.53	7.565E+04	7.907E+03	9.57

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.95	7.24	2.05	2.26	2.26	6.08	2.26

Tube #	Wall Temperatures (Deg C)	Tnave	Qdp	H	Thetab
#	1 2 3 4 5 6 (Deg C)	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	10.47 10.64-99.99-99.99-99.99-99.99	10.55	7.586E+04	9.858E+03	7.70
2	12.25 12.77-99.99-99.99-99.99-99.99	12.56	7.582E+04	7.918E+03	9.58

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.97	7.42	2.00	2.26	2.26	6.13	2.26

Tube #	Wall Temperatures (Deg C)	Tnave	Qdp	H	Thetab
#	1 2 3 4 5 6 (Deg C)	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.07 9.41-99.99-99.99-99.99-99.99	9.24	5.294E+04	8.089E+03	6.54
2	10.58 10.84-99.99-99.99-99.99-99.99	10.71	5.294E+04	6.711E+03	7.89

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.96	7.42	2.04	2.28	2.28	6.14	2.28

Tube #	Wall Temperatures (Deg C)	Tnave	Qdp	H	Thetab
#	1 2 3 4 5 6 (Deg C)	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.17 9.39-99.99-99.99-99.99-99.99	9.26	5.299E+04	8.093E+03	6.55
2	10.60 10.90-99.99-99.99-99.99-99.99	10.75	5.296E+04	6.700E+03	7.91

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.95	7.46	1.62	2.13	2.13	6.09	2.13

Tube #	Wall Temperatures (Deg C)	Tnave	Qdp	H	Thetab
#	1 2 3 4 5 6 (Deg C)	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.62 7.84-99.99-99.99-99.99-99.99	7.74	3.599E+04	6.798E+03	5.30
2	8.69 8.87-99.99-99.99-99.99-99.99	8.78	3.598E+04	5.797E+03	6.21

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.94	7.50	1.83	2.13	2.12	6.09	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.61	7.86-99.99-99.99-99.99-99.99	7.74	3.588E+04	6.775E+03	5.30				
2	8.69	8.86-99.99-99.99-99.99-99.99	8.78	3.588E+04	5.782E+03	6.21				

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.08	7.69	1.85	2.17	2.17	6.21	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.43	6.60-99.99-99.99-99.99-99.99	6.51	2.334E+04	5.666E+03	4.12				
2	7.35	7.42-99.99-99.99-99.99-99.99	7.39	2.335E+04	4.801E+03	4.86				

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.12	7.70	1.85	2.17	2.17	6.22	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.44	6.59-99.99-99.99-99.99-99.99	6.51	2.334E+04	5.665E+03	4.12				
2	7.32	7.43-99.99-99.99-99.99-99.99	7.38	2.335E+04	4.810E+03	4.85				

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.19	7.79	1.80	2.22	2.23	6.30	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.52	5.62-99.99-99.99-99.99-99.99	5.57	1.472E+04	4.629E+03	3.18				
2	6.52	6.57-99.99-99.99-99.99-99.99	6.55	1.474E+04	3.659E+03	4.03				

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.21	7.81	1.91	2.24	2.24	6.31	2.24

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.52	5.63-99.99-99.99-99.99-99.99	5.57	1.469E+04	4.628E+03	3.17				
2	6.52	6.57-99.99-99.99-99.99-99.99	6.54	1.471E+04	3.665E+03	4.01				

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.24	7.76	1.92	2.25	2.25	6.31	2.25

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	4.88	4.97-99.99-99.99-99.99-99.99	4.92	9.686E+03	3.798E+03	2.55				
2	6.02	6.03-99.99-99.99-99.99-99.99	6.03	9.715E+03	2.757E+03	3.52				

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.26	7.78	1.97	2.28	2.28	6.34	2.28			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.92	5.02	99.99	99.99	99.99	99.99	4.97	9.673E+03	3.771E+03	2.56
2	6.08	6.05	99.99	99.99	99.99	99.99	6.06	9.700E+03	2.745E+03	3.53

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.54	7.86	1.94	2.33	2.33	6.44	2.33			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.34	4.44	99.99	99.99	99.99	99.99	4.39	6.549E+03	3.339E+03	1.96
2	5.53	5.50	99.99	99.99	99.99	99.99	5.52	6.577E+03	2.224E+03	2.95

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.59	7.85	1.93	2.32	2.33	6.46	2.33			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.34	4.42	99.99	99.99	99.99	99.99	4.38	6.538E+03	3.351E+03	1.95
2	5.54	5.49	99.99	99.99	99.99	99.99	5.52	6.564E+03	2.219E+03	2.96

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.13	7.83	1.86	2.27	2.26	6.62	2.26			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.74	3.82	99.99	99.99	99.99	99.99	3.78	3.801E+03	2.658E+03	1.43
2	5.01	5.03	99.99	99.99	99.99	99.99	5.02	3.829E+03	1.504E+03	2.55

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.18	7.88	1.92	2.28	2.28	6.66	2.28			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.79	3.87	99.99	99.99	99.99	99.99	3.83	3.803E+03	2.601E+03	1.46
2	5.04	5.06	99.99	99.99	99.99	99.99	5.05	3.827E+03	1.497E+03	2.56

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.70	9.04	1.79	2.28	2.26	7.18	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.16	3.21	99.99	99.99	99.99	99.99	3.18	1.836E+03	2.173E+03	.84
2	4.42	4.38	99.99	99.99	99.99	99.99	4.40	1.856E+03	9.626E+02	1.93

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.71	9.16	1.75	2.26	2.25	7.21	2.25

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.13	3.18	-99.99	-99.99	-99.99	-99.99	3.16	1.835E+03	2.204E+03	.83
2	4.39	4.35	-99.99	-99.99	-99.99	-99.99	4.37	1.854E+03	9.678E+02	1.92

NOTE: 20 X-Y pairs were stored in plot data file PDFND79

Disl number = 15

File name: DFND80

This data set taken on : 04:30:15:16 02

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.58	6.68	1.95	2.19	2.19	5.74	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.11	11.25	-99.99	-99.99	-99.99	-99.99	11.18	9.566E+04	1.159E+04	8.25
2	13.45	14.02	-99.99	-99.99	-99.99	-99.99	13.73	9.565E+04	8.958E+03	10.68
3	14.20	14.41	-99.99	-99.99	-99.99	-99.99	14.30	9.497E+04	8.541E+03	11.12

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.56	6.66	1.95	2.18	2.18	5.72	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	11.13	11.24	-99.99	-99.99	-99.99	-99.99	11.19	9.548E+04	1.155E+04	8.27
2	12.49	12.95	-99.99	-99.99	-99.99	-99.99	12.72	9.548E+04	8.942E+03	10.68
3	14.20	14.40	-99.99	-99.99	-99.99	-99.99	14.30	9.476E+04	8.518E+03	11.12

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.44	6.64	2.05	2.29	2.29	5.71	2.29

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	10.41	10.67	-99.99	-99.99	-99.99	-99.99	10.54	7.813E+04	1.023E+04	7.64
2	12.49	12.95	-99.99	-99.99	-99.99	-99.99	12.72	7.811E+04	8.064E+03	9.69
3	13.17	13.13	-99.99	-99.99	-99.99	-99.99	13.15	7.753E+04	7.760E+03	9.99

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.44	6.64	2.07	2.21	2.31	5.72	2.31

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	10.45	10.63	-99.99	-99.99	-99.99	-99.99	10.54	7.821E+04	1.028E+04	7.61
2	12.51	12.95	-99.99	-99.99	-99.99	-99.99	12.73	7.820E+04	8.066E+03	9.67
3	13.16	13.14	-99.99	-99.99	-99.99	-99.99	13.15	7.762E+04	7.789E+03	9.97

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.45	6.71	1.88	2.18	2.19	5.68	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	8.88	9.23-99.99-99.99-99.99-99.99	9.06	5.503E+04	8.572E+03	6.42
2	10.62	10.94-99.99-99.99-99.99-99.99	10.78	5.502E+04	6.865E+03	8.01
3	11.15	10.90-99.99-99.99-99.99-99.99	11.03	5.465E+04	6.716E+03	8.14

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.46	6.71	1.87	2.17	2.18	5.68	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	8.89	9.18-99.99-99.99-99.99-99.99	9.04	5.503E+04	8.582E+03	6.41
2	10.60	10.91-99.99-99.99-99.99-99.99	10.75	5.501E+04	6.876E+03	8.00
3	11.16	10.90-99.99-99.99-99.99-99.99	11.03	5.464E+04	6.707E+03	8.15

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.59	6.92	1.64	2.17	2.16	5.78	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	7.57	7.82-99.99-99.99-99.99-99.99	7.67	3.687E+04	7.110E+03	5.19
2	8.92	9.12-99.99-99.99-99.99-99.99	9.02	3.687E+04	5.759E+03	6.40
3	9.35	9.03-99.99-99.99-99.99-99.99	9.19	3.665E+04	5.688E+03	6.44

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.60	6.90	1.86	2.19	2.19	5.80	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	7.57	7.84-99.99-99.99-99.99-99.99	7.70	3.696E+04	7.119E+03	5.19
2	8.95	9.16-99.99-99.99-99.99-99.99	9.05	3.698E+04	5.758E+03	6.42
3	9.37	9.04-99.99-99.99-99.99-99.99	9.20	3.675E+04	5.706E+03	6.44

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.94	7.36	1.90	2.27	2.27	6.07	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	6.39	6.57-99.99-99.99-99.99-99.99	6.48	2.440E+04	6.125E+03	3.96
2	7.54	7.67-99.99-99.99-99.99-99.99	7.61	2.441E+04	4.903E+03	4.98
3	7.92	7.65-99.99-99.99-99.99-99.99	7.79	2.429E+04	4.831E+03	5.03

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.98	7.39	1.91	2.27	2.27	6.09	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	6.40	6.58-99.99-99.99-99.99-99.99	6.49	2.432E+04	6.098E+03	3.99
2	7.57	7.68-99.99-99.99-99.99-99.99	7.60	2.422E+04	4.895E+03	4.97
3	7.91	7.70-99.99-99.99-99.99-99.99	7.81	2.420E+04	4.795E+03	5.05

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.03	7.54	1.86	2.24	2.25	6.15	2.25			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.43	5.51	99.99	99.99	99.99	99.99	5.47	1.562E+04	5.110E+03	3.06
2	6.32	6.38	99.99	99.99	99.99	99.99	6.35	1.564E+04	4.105E+03	3.81
3	6.81	6.69	99.99	99.99	99.99	99.99	6.70	1.558E+04	3.871E+03	4.02

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.04	7.55	1.87	2.25	2.26	6.15	2.25			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.43	5.53-99.99-99.99-99.99-99.99	5.48	1.559E+04	5.095E+03	3.06				
2	6.33	6.41-99.99-99.99-99.99-99.99	6.37	1.561E+04	4.081E+03	3.82				
3	6.82	6.60-99.99-99.99-99.99-99.99	6.71	1.555E+04	3.854E+03	4.04				

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.96	7.57	1.80	2.18	2.20	6.11	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.73	4.82	99.99	99.99	99.99	99.99	4.77	1.047E+04	4.267E+03	2.45
2	5.42	5.46	99.99	99.99	99.99	99.99	5.44	1.049E+04	3.509E+03	2.99
3	6.03	5.97	99.99	99.99	99.99	99.99	6.00	1.047E+04	3.050E+03	3.42

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.96	7.58	1.82	2.19	2.21	6.12	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.74	4.84-99.99-99.99-99.99-99.99	4.79	1.046E+04	4.247E+03	2.46				
2	5.44	5.49-99.99-99.99-99.99-99.99	5.46	1.048E+04	3.492E+03	3.00				
3	6.05	5.98-99.99-99.99-99.99-99.99	6.01	1.046E+04	3.052E+03	3.43				

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.99	7.58	1.86	2.26	2.26	6.14	2.26			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.33	4.43-99.99-99.99-99.99-99.99	4.38	7.392E+03	3.674E+03	2.01				
2	4.90	4.93-99.99-99.99-99.99-99.99	4.91	7.421E+03	3.072E+03	2.41				
3	5.59	5.56-99.99-99.99-99.99-99.99	5.57	7.409E+03	2.514E+03	2.95				

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.99	7.58	1.86	2.26	2.28	6.14	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.33	4.43	99.99	99.99	99.99	99.99	4.38	7.383E+03	3.699E+03	2.00
2	4.89	4.93	99.99	99.99	99.99	99.99	4.91	7.412E+03	3.093E+03	2.40
3	5.59	5.57	99.99	99.99	99.99	99.99	5.58	7.401E+03	2.514E+03	2.94

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.01	7.49	1.72	2.18	2.20	6.07	2.19

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.67	3.73	-99.99	-99.99	-99.99	-99.99	3.70	4.275E+03	2.999E+03	1.43
2	4.02	4.02	-99.99	-99.99	-99.99	-99.99	4.02	4.300E+03	2.666E+03	1.61
3	4.87	4.93	-99.99	-99.99	-99.99	-99.99	4.90	4.303E+03	1.821E+03	2.36

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.00	7.49	1.73	2.18	2.20	6.07	2.19

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.70	3.75	-99.99	-99.99	-99.99	-99.99	3.73	4.276E+03	2.944E+03	1.45
2	4.04	4.05	-99.99	-99.99	-99.99	-99.99	4.04	4.301E+03	2.623E+03	1.64
3	4.88	4.94	-99.99	-99.99	-99.99	-99.99	4.91	4.304E+03	1.809E+03	2.38

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.52	7.80	1.62	2.24	2.24	6.38	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.33	3.36	-99.99	-99.99	-99.99	-99.99	3.34	2.193E+03	2.130E+03	1.03
2	3.56	3.57	-99.99	-99.99	-99.99	-99.99	3.57	2.214E+03	1.968E+03	1.13
3	4.39	4.50	-99.99	-99.99	-99.99	-99.99	4.45	2.219E+03	1.183E+03	1.88

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
9.62	7.88	1.82	2.25	2.24	6.44	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.34	3.36	-99.99	-99.99	-99.99	-99.99	3.35	2.192E+03	2.130E+03	1.03
2	3.57	3.57	-99.99	-99.99	-99.99	-99.99	3.57	2.212E+03	1.970E+03	1.12
3	4.41	4.51	-99.99	-99.99	-99.99	-99.99	4.46	2.219E+03	1.176E+03	1.88

NOTE 20 X-Y pairs were stored in plot data file PDFN080

Dist number = 15

File name DFNDE1

This data set taken on 10/4/30 14 10 59

Data Set Number = 1

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.31	6.33	1.97	2.21	2.22	5.54	2.22

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	10.97	11.12	-99.99	-99.99	-99.99	-99.99	11.05	9.222E+04	1.137E+04	8.11
2	13.24	13.78	-99.99	-99.99	-99.99	-99.99	13.51	9.219E+04	8.823E+03	10.45
3	14.10	14.36	-99.99	-99.99	-99.99	-99.99	14.23	9.153E+04	8.288E+03	11.04
4	12.81	12.29	-99.99	-99.99	-99.99	-99.99	12.55	9.098E+04	9.847E+03	9.24

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.27	6.29	1.98	2.23	2.23	5.51	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)		
1	2	3	4	5	6		
1	10.92	11.10	99.99-99.99-99.99-99.99-99.99	11.01	9.219E+04	1.143E+04	8.06
2	13.24	13.78	99.99-99.99-99.99-99.99-99.99	13.51	9.216E+04	8.834E+03	10.43
3	14.10	14.35	99.99-99.99-99.99-99.99-99.99	14.22	9.150E+04	8.300E+03	11.02
4	12.01	12.29	99.99-99.99-99.99-99.99-99.99	12.55	9.096E+04	9.860E+03	9.23

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.11	6.24	1.89	2.17	2.16	5.41	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)		
1	2	3	4	5	6		
1	9.93	10.20	99.99-99.99-99.99-99.99-99.99	10.07	7.360E+04	1.005E+04	7.32
2	11.96	12.38	99.99-99.99-99.99-99.99-99.99	12.17	7.357E+04	7.914E+03	9.30
3	12.70	12.73	99.99-99.99-99.99-99.99-99.99	12.71	7.303E+04	7.517E+03	9.71
4	11.64	11.26	99.99-99.99-99.99-99.99-99.99	11.45	7.257E+04	8.719E+03	8.32

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.11	6.24	1.90	2.18	2.17	5.41	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)		
1	2	3	4	5	6		
1	9.94	10.18	99.99-99.99-99.99-99.99-99.99	10.06	7.357E+04	1.007E+04	7.30
2	11.98	12.39	99.99-99.99-99.99-99.99-99.99	12.18	7.353E+04	7.908E+03	9.30
3	12.71	12.74	99.99-99.99-99.99-99.99-99.99	12.72	7.300E+04	7.516E+03	9.71
4	11.65	11.25	99.99-99.99-99.99-99.99-99.99	11.45	7.256E+04	8.726E+03	8.32

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.15	6.20	1.95	2.27	2.27	5.43	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)		
1	2	3	4	5	6		
1	8.59	8.88	99.99-99.99-99.99-99.99-99.99	8.74	5.105E+04	8.441E+03	6.05
2	10.22	10.51	99.99-99.99-99.99-99.99-99.99	10.36	5.102E+04	6.764E+03	7.54
3	10.88	10.71	99.99-99.99-99.99-99.99-99.99	10.80	5.067E+04	6.454E+03	7.85
4	10.09	9.91	99.99-99.99-99.99-99.99-99.99	10.00	5.035E+04	7.271E+03	6.93

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.15	6.18	1.98	2.28	2.29	5.44	2.29

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)		
1	2	3	4	5	6		
1	8.61	8.90	99.99-99.99-99.99-99.99-99.99	8.76	5.129E+04	8.483E+03	6.05
2	10.24	10.53	99.99-99.99-99.99-99.99-99.99	10.38	5.125E+04	6.792E+03	7.55
3	10.92	10.73	99.99-99.99-99.99-99.99-99.99	10.82	5.092E+04	6.480E+03	7.86
4	10.11	9.91	99.99-99.99-99.99-99.99-99.99	10.01	5.058E+04	7.311E+03	6.92

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.35	6.74	1.86	2.20	2.20	5.65	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.14	7.39	-99.99	-99.99	-99.99	-99.99	7.27	3.443E+04	7.232E+03	4.76
2	8.45	8.64	-99.99	-99.99	-99.99	-99.99	8.55	3.443E+04	5.824E+03	5.91
3	9.14	8.87	-99.99	-99.99	-99.99	-99.99	9.00	3.424E+04	5.483E+03	6.24
4	8.56	8.59	-99.99	-99.99	-99.99	-99.99	8.57	3.400E+04	5.983E+03	5.68

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.37	6.79	1.90	2.24	2.24	5.68	2.24			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.16	7.42	-99.99	-99.99	-99.99	-99.99	7.29	3.439E+04	7.239E+03	4.75
2	8.48	8.66	-99.99	-99.99	-99.99	-99.99	8.57	3.441E+04	5.828E+03	5.90
3	9.17	8.93	-99.99	-99.99	-99.99	-99.99	9.05	3.421E+04	5.469E+03	6.26
4	8.57	8.63	-99.99	-99.99	-99.99	-99.99	8.60	3.395E+04	5.987E+03	5.67

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.50	7.05	1.88	2.28	2.28	5.81	2.28			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(F)
1	5.99	6.13	-99.99	-99.99	-99.99	-99.99	6.06	2.245E+04	6.300E+03	3.56
2	7.02	7.12	-99.99	-99.99	-99.99	-99.99	7.07	2.247E+04	5.053E+03	4.45
3	7.62	7.42	-99.99	-99.99	-99.99	-99.99	7.52	2.236E+04	4.691E+03	4.77
4	7.34	7.55	-99.99	-99.99	-99.99	-99.99	7.45	2.219E+04	4.860E+03	4.57

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	6.50	7.05	1.88	2.28	2.29	5.81	2.28			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.00	6.17	-99.99	-99.99	-99.99	-99.99	6.08	2.241E+04	6.251E+03	3.59
2	7.00	7.14	-99.99	-99.99	-99.99	-99.99	7.07	2.243E+04	5.046E+03	4.44
3	7.62	7.41	-99.99	-99.99	-99.99	-99.99	7.51	2.232E+04	4.690E+03	4.76
4	7.33	7.58	-99.99	-99.99	-99.99	-99.99	7.45	2.215E+04	4.845E+03	4.57

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.56	7.20	1.70	2.12	2.13	5.82	2.13			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.84	4.94	-99.99	-99.99	-99.99	-99.99	4.89	1.370E+04	5.249E+03	2.61
2	5.62	5.67	-99.99	-99.99	-99.99	-99.99	5.65	1.272E+04	4.241E+03	3.24
3	6.05	5.94	-99.99	-99.99	-99.99	-99.99	5.99	1.368E+04	3.959E+03	3.46
4	6.18	6.48	-99.99	-99.99	-99.99	-99.99	6.33	1.355E+04	3.701E+03	3.66

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.56	7.22	1.71	2.12	2.13	5.83	2.12

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.84	4.98	-99.99	-99.99	-99.99	-99.99	4.91	1.371E+04	5.203E+03	2.63
2	5.61	5.68	-99.99	-99.99	-99.99	-99.99	5.64	1.373E+04	4.242E+03	3.24
3	6.05	5.95	-99.99	-99.99	-99.99	-99.99	6.00	1.368E+04	3.947E+03	3.47
4	6.17	6.47	-99.99	-99.99	-99.99	-99.99	6.32	1.356E+04	3.712E+03	3.65

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.68	7.40	1.79	2.20	2.22	5.96	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.37	4.48	-99.99	-99.99	-99.99	-99.99	4.42	9.035E+03	4.323E+03	2.09
2	4.98	5.02	-99.99	-99.99	-99.99	-99.99	5.00	9.066E+03	3.571E+03	2.54
3	5.29	5.22	-99.99	-99.99	-99.99	-99.99	5.25	9.047E+03	3.399E+03	2.66
4	5.74	6.05	-99.99	-99.99	-99.99	-99.99	5.89	8.956E+03	2.822E+03	3.17

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.69	7.41	1.80	2.23	2.23	5.97	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.39	4.49	-99.99	-99.99	-99.99	-99.99	4.44	9.016E+03	4.308E+03	2.09
2	4.98	5.03	-99.99	-99.99	-99.99	-99.99	5.01	9.050E+03	3.579E+03	2.53
3	5.30	5.23	-99.99	-99.99	-99.99	-99.99	5.26	9.031E+03	3.403E+03	2.65
4	5.75	6.06	-99.99	-99.99	-99.99	-99.99	5.91	8.940E+03	2.819E+03	3.17

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.72	7.39	1.77	2.22	2.23	5.96	2.22

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.88	3.95	-99.99	-99.99	-99.99	-99.99	3.91	5.744E+03	3.598E+03	1.60
2	4.31	4.34	-99.99	-99.99	-99.99	-99.99	4.33	5.772E+03	3.074E+03	1.88
3	4.52	4.44	-99.99	-99.99	-99.99	-99.99	4.48	5.772E+03	3.032E+03	1.90
4	5.27	5.50	-99.99	-99.99	-99.99	-99.99	5.38	5.710E+03	2.132E+03	2.68

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.74	7.39	1.78	2.21	2.22	5.97	2.22

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.89	3.95	-99.99	-99.99	-99.99	-99.99	3.92	5.747E+03	3.584E+03	1.60
2	4.32	4.35	-99.99	-99.99	-99.99	-99.99	4.33	5.776E+03	3.060E+03	1.89
3	4.52	4.45	-99.99	-99.99	-99.99	-99.99	4.49	5.773E+03	3.008E+03	1.92
4	5.28	5.52	-99.99	-99.99	-99.99	-99.99	5.40	5.712E+03	2.118E+03	2.70

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.90	7.39	1.73	2.20	2.20	6.00	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.39	3.44	99.99	99.99	99.99	99.99	3.41	3.335E+03	2.953E+03	1.13
2	3.69	3.71	99.99	99.99	99.99	99.99	3.70	3.360E+03	2.603E+03	1.29
3	3.92	3.84	99.99	99.99	99.99	99.99	3.88	3.367E+03	2.511E+03	1.34
4	4.08	5.02	99.99	99.99	99.99	99.99	4.95	3.325E+03	1.459E+03	2.28

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.92	7.39	1.72	2.20	2.21	6.01	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.40	3.45	99.99	99.99	99.99	99.99	3.43	3.342E+03	2.930E+03	1.14
2	3.71	3.73	99.99	99.99	99.99	99.99	3.72	3.367E+03	2.580E+03	1.31
3	3.94	3.84	99.99	99.99	99.99	99.99	3.89	3.370E+03	2.502E+03	1.35
4	4.88	5.02	99.99	99.99	99.99	99.99	4.95	3.332E+03	1.463E+03	2.28

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.64	7.90	1.71	2.21	2.21	6.42	2.21

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.02	3.02	99.99	99.99	99.99	99.99	3.02	1.592E+03	2.122E+03	.75
2	3.24	3.23	99.99	99.99	99.99	99.99	3.24	1.608E+03	1.920E+03	.83
3	3.59	3.53	99.99	99.99	99.99	99.99	3.56	1.616E+03	1.571E+03	1.03
4	4.37	4.49	99.99	99.99	99.99	99.99	4.43	1.595E+03	9.030E+02	1.77

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.72	7.95	1.67	2.18	2.19	6.45	2.18

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	2.98	2.99	99.99	99.99	99.99	99.99	2.98	1.592E+03	2.179E+03	.73
2	3.20	3.20	99.99	99.99	99.99	99.99	3.20	1.611E+03	1.968E+03	.82
3	3.58	3.50	99.99	99.99	99.99	99.99	3.54	1.617E+03	1.567E+03	1.03
4	4.34	4.44	99.99	99.99	99.99	99.99	4.39	1.596E+03	9.120E+02	1.75

NOTE 20 X-Y pairs were stored in plot data file PDFNDB1

Dist number = 15  
File name DFND82  
This data set taken on 04 30 13 09 17

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.23	6.79	1.90	2.16	2.15	5.64	2.16

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.80	11.00	99.99	99.99	99.99	99.99	10.90	9.348E+04	1.165E+04	8.02
2	13.16	12.68	99.99	99.99	99.99	99.99	13.42	9.347E+04	8.977E+03	10.41
3	14.02	14.21	99.99	99.99	99.99	99.99	14.12	9.277E+04	8.447E+03	10.98
4	12.91	12.33	99.99	99.99	99.99	99.99	12.62	9.222E+04	9.855E+03	9.36
5	11.59	15.60	99.99	99.99	99.99	99.99	13.69	9.226E+04	8.952E+03	10.31

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.17	6.80	1.90	2.15	2.14	5.62	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.81	11.02	99.99	99.99	99.99	99.99	10.91	9.362E+04	1.164E+04	8.04
2	13.16	13.68	99.99	99.99	99.99	99.99	13.42	9.363E+04	8.985E+03	10.42
3	14.00	14.23	99.99	99.99	99.99	99.99	14.12	9.295E+04	8.455E+03	10.99
4	12.90	12.33	99.99	99.99	99.99	99.99	12.62	9.234E+04	9.855E+03	9.37
5	11.59	15.80	99.99	99.99	99.99	99.99	13.70	9.239E+04	8.952E+03	10.32

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.85	6.35	1.93	2.21	2.21	5.38	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.04	10.31	99.99	99.99	99.99	99.99	10.18	7.699E+04	1.046E+04	7.36
2	12.16	12.58	99.99	99.99	99.99	99.99	12.37	7.697E+04	8.164E+03	9.43
3	12.89	12.89	99.99	99.99	99.99	99.99	12.89	7.640E+04	7.778E+03	9.82
4	11.97	11.49	99.99	99.99	99.99	99.99	11.73	7.595E+04	8.896E+03	8.54
5	10.93	14.44	99.99	99.99	99.99	99.99	12.68	7.597E+04	8.115E+03	9.36

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.83	6.32	1.94	2.21	2.21	5.36	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.04	10.33	99.99	99.99	99.99	99.99	10.19	7.707E+04	1.045E+04	7.37
2	12.17	12.60	99.99	99.99	99.99	99.99	12.38	7.704E+04	8.165E+03	9.44
3	12.90	12.92	99.99	99.99	99.99	99.99	12.91	7.648E+04	7.774E+03	9.84
4	11.99	11.49	99.99	99.99	99.99	99.99	11.74	7.602E+04	8.899E+03	8.54
5	10.94	14.47	99.99	99.99	99.99	99.99	12.70	7.604E+04	8.108E+03	9.38

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.87	6.31	1.90	2.21	2.22	5.36	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.51	8.87	99.99	99.99	99.99	99.99	8.69	5.302E+04	8.776E+03	6.04
2	10.25	10.55	99.99	99.99	99.99	99.99	10.40	5.303E+04	6.959E+03	7.62
3	10.84	10.65	99.99	99.99	99.99	99.99	10.74	5.267E+04	6.719E+03	7.84
4	10.27	9.98	99.99	99.99	99.99	99.99	10.13	5.233E+04	7.374E+03	7.10
5	9.68	12.08	99.99	99.99	99.99	99.99	10.88	5.232E+04	6.780E+03	7.72

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.88	6.32	1.92	2.23	2.23	5.38	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.56	8.88	99.99	99.99	99.99	99.99	8.72	5.289E+04	8.740E+03	6.05
2	10.27	10.58	99.99	99.99	99.99	99.99	10.42	5.266E+04	6.930E+03	7.63
3	10.85	10.66	99.99	99.99	99.99	99.99	10.76	5.251E+04	6.703E+03	7.83
4	10.27	10.01	99.99	99.99	99.99	99.99	10.14	5.218E+04	7.359E+03	7.09
5	9.70	12.09	99.99	99.99	99.99	99.99	10.89	5.217E+04	6.763E+03	7.71

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.98	6.44	1.79	2.16	2.15	5.40	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.06	7.28	-99.99	-99.99	-99.99	-99.99	7.17	3.568E+04	7.589E+03	4.70
2	8.38	8.59	-99.99	-99.99	-99.99	-99.99	9.48	3.569E+04	6.063E+03	5.89
3	8.91	8.66	-99.99	-99.99	-99.99	-99.99	8.79	3.547E+04	5.848E+03	6.07
4	8.66	8.58	-99.99	-99.99	-99.99	-99.99	8.62	3.523E+04	6.109E+03	5.77
5	8.42	9.95	-99.99	-99.99	-99.99	-99.99	9.18	3.521E+04	5.675E+03	6.20

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.01	6.45	1.76	2.13	2.13	5.41	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.02	7.25	-99.99	-99.99	-99.99	-99.99	7.13	3.568E+04	7.608E+03	4.69
2	8.35	8.56	-99.99	-99.99	-99.99	-99.99	8.46	3.569E+04	5.063E+03	5.89
3	8.90	8.65	-99.99	-99.99	-99.99	-99.99	8.78	3.548E+04	5.839E+03	6.08
4	8.64	8.55	-99.99	-99.99	-99.99	-99.99	8.60	3.522E+04	6.104E+03	5.77
5	8.38	9.91	-99.99	-99.99	-99.99	-99.99	9.15	3.520E+04	5.687E+03	6.19

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.11	6.61	1.88	2.28	2.29	5.53	2.28			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.94	6.11	-99.99	-99.99	-99.99	-99.99	6.02	2.311E+04	6.573E+03	3.52
2	6.93	7.07	-99.99	-99.99	-99.99	-99.99	7.00	2.314E+04	5.300E+03	4.37
3	7.47	7.24	-99.99	-99.99	-99.99	-99.99	7.36	2.303E+04	5.014E+03	4.59
4	7.50	7.53	-99.99	-99.99	-99.99	-99.99	7.52	2.284E+04	4.937E+03	4.63
5	7.42	8.39	-99.99	-99.99	-99.99	-99.99	7.90	2.282E+04	4.672E+03	4.88

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.10	6.61	1.88	2.29	2.29	5.53	2.29			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.90	6.09	-99.99	-99.99	-99.99	-99.99	5.99	2.310E+04	6.633E+03	3.48
2	6.93	7.08	-99.99	-99.99	-99.99	-99.99	7.00	2.312E+04	5.299E+03	4.36
3	7.50	7.26	-99.99	-99.99	-99.99	-99.99	7.38	2.301E+04	4.992E+03	4.61
4	7.52	7.52	-99.99	-99.99	-99.99	-99.99	7.52	2.283E+04	4.933E+03	4.63
5	7.42	8.38	-99.99	-99.99	-99.99	-99.99	7.90	2.280E+04	4.677E+03	4.88

Data Set Number = 11

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.09	6.61	1.90	2.31	2.31	5.53	2.31			
Tube	Wall Temperatures (°C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(°C)	(W/m²)	(W/m².K)	(K)
1	5.94	6.13	-99.99	-99.99	-99.99	-99.99	6.03	2.313E+04	6.595E+03	3.51
2	6.95	7.09	-99.99	-99.99	-99.99	-99.99	7.02	2.315E+04	5.304E+03	4.36
3	7.50	7.28	-99.99	-99.99	-99.99	-99.99	7.39	2.304E+04	5.006E+03	4.60
4	7.54	7.55	-99.99	-99.99	-99.99	-99.99	7.55	2.286E+04	4.933E+03	4.63
5	7.45	8.41	-99.99	-99.99	-99.99	-99.99	7.93	2.284E+04	4.670E+03	4.89

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.08	6.79	1.71	2.15	2.16	5.53	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.85	4.98	99.99	99.99	99.99	99.99	4.91	1.471E+04	5.664E+03	2.60
2	5.62	5.70	99.99	99.99	99.99	99.99	5.66	1.463E+04	4.548E+03	3.22
3	6.06	5.92	99.99	99.99	99.99	99.99	5.99	1.437E+04	4.205E+03	3.42
4	6.21	6.29	99.99	99.99	99.99	99.99	6.25	1.422E+04	4.006E+03	3.55
5	6.40	7.01	99.99	99.99	99.99	99.99	6.71	1.422E+04	3.663E+03	3.88

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.09	6.80	1.71	2.14	2.16	5.53	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.84	4.95	99.99	99.99	99.99	99.99	4.89	1.459E+04	5.646E+03	2.58
2	5.59	5.69	99.99	99.99	99.99	99.99	5.64	1.462E+04	4.562E+03	3.21
3	6.03	5.91	99.99	99.99	99.99	99.99	5.97	1.457E+04	4.279E+03	3.40
4	6.19	6.31	99.99	99.99	99.99	99.99	6.25	1.444E+04	4.062E+03	3.56
5	6.38	6.97	99.99	99.99	99.99	99.99	6.68	1.443E+04	3.744E+03	3.85

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.09	6.83	1.72	2.14	2.15	5.55	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.86	4.96	99.99	99.99	99.99	99.99	4.91	1.470E+04	5.659E+03	2.60
2	5.61	5.69	99.99	99.99	99.99	99.99	5.65	1.473E+04	4.586E+03	3.21
3	6.04	5.91	99.99	99.99	99.99	99.99	5.98	1.468E+04	4.306E+03	3.41
4	6.21	6.28	99.99	99.99	99.99	99.99	6.25	1.455E+04	4.099E+03	3.55
5	6.39	6.99	99.99	99.99	99.99	99.99	6.69	1.453E+04	3.759E+03	3.87

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.25	7.05	1.70	2.15	2.18	5.67	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.27	4.36	99.99	99.99	99.99	99.99	4.32	9.680E+03	4.781E+03	2.02
2	4.86	4.89	99.99	99.99	99.99	99.99	4.87	9.708E+03	3.957E+03	2.45
3	5.20	5.11	99.99	99.99	99.99	99.99	5.15	9.686E+03	3.719E+03	2.60
4	5.41	5.50	99.99	99.99	99.99	99.99	5.45	9.595E+03	3.456E+03	2.78
5	5.83	6.27	99.99	99.99	99.99	99.99	6.05	9.585E+03	2.955E+03	3.24

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.27	7.08	1.71	2.16	2.18	5.69	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.26	4.38	99.99	99.99	99.99	99.99	4.32	9.673E+03	4.773E+03	2.03
2	4.86	4.91	99.99	99.99	99.99	99.99	4.88	9.705E+03	3.945E+03	2.46
3	5.21	5.11	99.99	99.99	99.99	99.99	5.16	9.688E+03	3.710E+03	2.61
4	5.40	5.51	99.99	99.99	99.99	99.99	5.46	9.588E+03	3.455E+03	2.78
5	5.85	6.26	99.99	99.99	99.99	99.99	6.06	9.582E+03	2.950E+03	3.25

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.41	7.19	1.71	2.18	2.19	5.77	2.18

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.88	3.96	-99.99	-99.99	-99.99	-99.99	3.92	6.639E+03	4.856E+03	1.64
2	4.35	4.38	-99.99	-99.99	-99.99	-99.99	4.36	6.667E+03	3.426E+03	1.95
3	4.64	4.65	-99.99	-99.99	-99.99	-99.99	4.60	6.663E+03	3.240E+03	2.05
4	4.88	4.93	-99.99	-99.99	-99.99	-99.99	4.90	6.591E+03	2.955E+03	2.23
5	5.45	5.73	-99.99	-99.99	-99.99	-99.99	5.59	6.583E+03	2.363E+03	2.79

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.42	7.19	1.72	2.18	2.20	5.78	2.19

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.89	3.96	-99.99	-99.99	-99.99	-99.99	3.93	6.653E+03	4.078E+03	1.63
2	4.35	4.38	-99.99	-99.99	-99.99	-99.99	4.36	6.685E+03	3.449E+03	1.94
3	4.65	4.58	-99.99	-99.99	-99.99	-99.99	4.61	6.677E+03	3.239E+03	2.06
4	4.88	4.91	-99.99	-99.99	-99.99	-99.99	4.89	6.605E+03	2.985E+03	2.21
5	5.44	5.73	-99.99	-99.99	-99.99	-99.99	5.58	6.600E+03	2.378E+03	2.78

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.52	7.24	1.66	2.14	2.14	5.81	2.14

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.36	3.40	-99.99	-99.99	-99.99	-99.99	3.39	3.842E+03	3.302E+03	1.16
2	3.71	3.72	-99.99	-99.99	-99.99	-99.99	3.71	3.868E+03	2.847E+03	1.36
3	3.98	3.91	-99.99	-99.99	-99.99	-99.99	3.94	3.873E+03	2.654E+03	1.46
4	4.26	4.20	-99.99	-99.99	-99.99	-99.99	4.23	3.828E+03	2.362E+03	1.62
5	4.95	5.10	-99.99	-99.99	-99.99	-99.99	5.03	3.822E+03	1.673E+03	2.28

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.82	7.35	1.68	2.15	2.16	5.95	2.16

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.05	3.05	-99.99	-99.99	-99.99	-99.99	3.05	1.827E+03	2.217E+03	.82
2	3.28	3.29	-99.99	-99.99	-99.99	-99.99	3.29	1.847E+03	1.981E+03	.93
3	3.56	3.53	-99.99	-99.99	-99.99	-99.99	3.56	1.853E+03	1.750E+03	1.06
4	3.97	4.01	-99.99	-99.99	-99.99	-99.99	3.99	1.832E+03	1.331E+03	1.38
5	4.40	4.58	-99.99	-99.99	-99.99	-99.99	4.49	1.831E+03	1.050E+03	1.74

NOTE 20 X-Y pairs were stored in plot data file PDFND82

Disi number = 15

File name DFN083

This data set taken on 04/30/11/58 14

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.08	6.80	1.80	2.14	2.14	5.56	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	10.41	10.67	-99.99	-99.99	-99.99	10.54	9.305E+04	1.211E+04	7.68
2	13.05	13.56	-99.99	-99.99	-99.99	13.30	9.309E+04	9.023E+03	10.32
3	13.82	13.93	-99.99	-99.99	-99.99	13.88	9.244E+04	8.588E+03	10.76
4	12.56	12.04	-99.99	-99.99	-99.99	12.30	9.182E+04	1.013E+04	9.06
5	11.42	15.62	-99.99	-99.99	-99.99	13.52	9.190E+04	9.048E+03	10.16

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.94	6.71	1.79	2.14	2.13	5.48	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	10.36	10.67	-99.99	-99.99	-99.99	10.51	9.316E+04	1.217E+04	7.65
2	13.03	13.56	-99.99	-99.99	-99.99	13.29	9.315E+04	9.037E+03	10.31
3	13.82	13.93	-99.99	-99.99	-99.99	13.87	9.251E+04	8.596E+03	10.76
4	12.55	12.03	-99.99	-99.99	-99.99	12.29	9.192E+04	1.015E+04	9.05
5	11.40	15.60	-99.99	-99.99	-99.99	13.50	9.198E+04	9.076E+03	10.13

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.79	6.12	1.80	2.17	2.16	4.90	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	9.66	9.92	-99.99	-99.99	-99.99	9.79	7.695E+04	1.096E+04	7.02
2	12.03	12.43	-99.99	-99.99	-99.99	12.23	7.700E+04	8.254E+03	9.33
3	12.69	12.65	-99.99	-99.99	-99.99	12.67	7.653E+04	7.933E+03	9.65
4	11.71	11.24	-99.99	-99.99	-99.99	11.47	7.599E+04	9.132E+03	8.32
5	10.80	14.34	-99.99	-99.99	-99.99	12.57	7.600E+04	8.180E+03	9.29

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.75	6.09	1.80	2.16	2.15	4.88	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	9.61	9.96	-99.99	-99.99	-99.99	9.79	7.701E+04	1.097E+04	7.02
2	12.02	12.43	-99.99	-99.99	-99.99	12.22	7.699E+04	8.255E+03	9.33
3	12.71	12.66	-99.99	-99.99	-99.99	12.68	7.651E+04	7.916E+03	9.66
4	11.70	11.23	-99.99	-99.99	-99.99	11.46	7.602E+04	9.138E+03	8.32
5	10.78	14.35	-99.99	-99.99	-99.99	12.56	7.601E+04	8.182E+03	9.29

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.71	6.29	1.72	2.14	2.12	4.91	2.13

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	8.17	8.39	-99.99	-99.99	-99.99	8.28	5.365E+04	9.397E+03	5.71
2	10.10	10.35	-99.99	-99.99	-99.99	10.23	5.363E+04	7.127E+03	7.53
3	10.65	10.41	-99.99	-99.99	-99.99	10.53	5.331E+04	6.922E+03	7.70
4	9.99	9.69	-99.99	-99.99	-99.99	9.84	5.295E+04	7.690E+03	6.89
5	9.50	12.01	-99.99	-99.99	-99.99	10.76	5.294E+04	6.897E+03	7.68

Date Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.76	6.34	1.73	2.15	2.13	4.94	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.16	8.42	99.99	99.99	99.99	99.99	8.29	5.361E+04	9.389E+03	5.71
2	10.11	10.37	99.99	99.99	99.99	99.99	10.24	5.361E+04	7.118E+03	7.53
3	10.67	10.42	99.99	99.99	99.99	99.99	10.55	5.330E+04	6.913E+03	7.71
4	9.99	9.68	99.99	99.99	99.99	99.99	9.83	5.292E+04	7.704E+03	6.87
5	9.51	12.00	99.99	99.99	99.99	99.99	10.75	5.289E+04	6.901E+03	7.66

Date Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.97	6.77	1.84	2.19	2.18	5.53	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.77	6.97	99.99	99.99	99.99	99.99	6.87	3.576E+04	8.178E+03	4.37
2	8.25	8.42	99.99	99.99	99.99	99.99	8.34	3.577E+04	6.264E+03	5.71
3	8.71	8.41	99.99	99.99	99.99	99.99	8.56	3.555E+04	6.121E+03	5.81
4	8.38	8.18	99.99	99.99	99.99	99.99	8.28	3.531E+04	6.538E+03	5.40
5	8.29	9.92	99.99	99.99	99.99	99.99	9.10	3.530E+04	5.791E+03	6.10

Date Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	8.13	6.87	1.83	2.18	2.17	5.61	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.74	6.95	99.99	99.99	99.99	99.99	6.85	3.561E+04	8.172E+03	4.36
2	8.23	8.41	99.99	99.99	99.99	99.99	8.32	3.563E+04	6.247E+03	5.70
3	8.71	8.40	99.99	99.99	99.99	99.99	8.56	3.541E+04	6.095E+03	5.81
4	8.39	8.21	99.99	99.99	99.99	99.99	8.30	3.516E+04	6.480E+03	5.43
5	8.27	9.90	99.99	99.99	99.99	99.99	9.08	3.515E+04	5.778E+03	6.08

Date Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.63	6.25	1.84	2.23	2.22	5.24	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.52	5.67	99.99	99.99	99.99	99.99	5.60	2.308E+04	7.321E+03	3.15
2	6.68	6.77	99.99	99.99	99.99	99.99	6.72	2.310E+04	5.565E+03	4.15
3	7.10	6.82	99.99	99.99	99.99	99.99	6.96	2.298E+04	5.397E+03	4.26
4	7.06	6.97	99.99	99.99	99.99	99.99	7.02	2.281E+04	5.449E+03	4.19
5	7.12	8.12	99.99	99.99	99.99	99.99	7.62	2.279E+04	4.885E+03	4.66

Date Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.60	6.23	1.83	2.22	2.22	5.22	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.53	5.65	99.99	99.99	99.99	99.99	5.59	2.308E+04	7.324E+03	3.15
2	6.66	6.76	99.99	99.99	99.99	99.99	6.71	2.310E+04	5.572E+03	4.15
3	7.09	6.79	99.99	99.99	99.99	99.99	6.94	2.298E+04	5.413E+03	4.25
4	7.05	6.98	99.99	99.99	99.99	99.99	7.02	2.280E+04	5.440E+03	4.19
5	7.13	8.11	99.99	99.99	99.99	99.99	7.62	2.279E+04	4.882E+03	4.67

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.65	6.39	1.73	2.16	2.16	5.25	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.53	4.61	99.99	99.99	99.99	99.99	4.57	1.490E+04	6.621E+03	2.25
2	5.45	5.49	99.99	99.99	99.99	99.99	5.47	1.493E+04	4.946E+03	3.02
3	5.75	5.58	99.99	99.99	99.99	99.99	5.66	1.488E+04	4.825E+03	3.08
4	5.90	5.89	99.99	99.99	99.99	99.99	5.89	1.474E+04	4.626E+03	3.19
5	6.08	6.66	99.99	99.99	99.99	99.99	6.37	1.473E+04	4.169E+03	3.53

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.68	6.40	1.73	2.16	2.17	5.27	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.53	4.63	99.99	99.99	99.99	99.99	4.58	1.490E+04	6.609E+03	2.26
2	5.44	5.48	99.99	99.99	99.99	99.99	5.46	1.493E+04	4.976E+03	3.00
3	5.75	5.58	99.99	99.99	99.99	99.99	5.66	1.488E+04	4.830E+03	3.08
4	5.90	5.91	99.99	99.99	99.99	99.99	5.91	1.475E+04	4.614E+03	3.20
5	6.08	6.66	99.99	99.99	99.99	99.99	6.37	1.474E+04	4.175E+03	3.53

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.88	6.64	1.65	2.13	2.13	5.39	2.13			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.95	3.99	99.99	99.99	99.99	99.99	3.97	1.016E+04	5.949E+03	1.71
2	4.63	4.64	99.99	99.99	99.99	99.99	4.64	1.019E+04	4.538E+03	2.25
3	4.92	4.84	99.99	99.99	99.99	99.99	4.88	1.017E+04	4.312E+03	2.36
4	5.13	5.14	99.99	99.99	99.99	99.99	5.14	1.007E+04	4.043E+03	2.49
5	5.36	5.72	99.99	99.99	99.99	99.99	5.54	1.006E+04	3.641E+03	2.76

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.89	6.67	1.65	2.13	2.13	5.40	2.13			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.93	3.99	99.99	99.99	99.99	99.99	3.96	1.016E+04	5.976E+03	1.70
2	4.61	4.66	99.99	99.99	99.99	99.99	4.63	1.020E+04	4.545E+03	2.24
3	4.91	4.83	99.99	99.99	99.99	99.99	4.87	1.017E+04	4.319E+03	2.35
4	5.11	5.14	99.99	99.99	99.99	99.99	5.13	1.006E+04	4.058E+03	2.48
5	5.32	5.69	99.99	99.99	99.99	99.99	5.51	1.006E+04	3.681E+03	2.73

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.96	6.79	1.64	2.14	2.15	5.47	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.57	3.64	99.99	99.99	99.99	99.99	3.60	7.077E+03	5.243E+03	1.35
2	4.10	4.12	99.99	99.99	99.99	99.99	4.11	7.113E+03	4.116E+03	1.73
3	4.37	4.32	99.99	99.99	99.99	99.99	4.34	7.105E+03	3.875E+03	1.83
4	4.64	4.64	99.99	99.99	99.99	99.99	4.64	7.023E+03	3.510E+03	2.00
5	4.76	5.03	99.99	99.99	99.99	99.99	4.90	7.019E+03	3.293E+03	2.13

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.98	6.80	1.65	2.15	2.15	5.48	2.15			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	3.57	3.66	99.99	99.99	99.99	99.99	3.62	7.079E+03	5.200E+03	1.36
2	4.10	4.13	99.99	99.99	99.99	99.99	4.12	7.109E+03	4.105E+03	1.73
3	4.39	4.34	99.99	99.99	99.99	99.99	4.36	7.102E+03	3.838E+03	1.85
4	4.66	4.65	99.99	99.99	99.99	99.99	4.65	7.030E+03	3.498E+03	2.01
5	4.80	5.07	99.99	99.99	99.99	99.99	4.94	7.020E+03	3.241E+03	2.17

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.19	7.07	1.63	2.16	2.17	5.63	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.20	3.24	99.99	99.99	99.99	99.99	3.22	4.304E+03	4.440E+03	.97
2	3.58	3.59	99.99	99.99	99.99	99.99	3.58	4.333E+03	3.595E+03	1.21
3	3.83	3.79	99.99	99.99	99.99	99.99	3.81	4.333E+03	3.324E+03	1.30
4	4.07	4.06	99.99	99.99	99.99	99.99	4.06	4.286E+03	3.003E+03	1.43
5	4.20	4.42	99.99	99.99	99.99	99.99	4.31	4.282E+03	2.775E+03	1.54

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	8.23	7.09	1.63	2.15	2.16	5.65	2.16		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.21	3.23-99.99-99.99-99.99-99.99	3.22	4.331E+03	4.457E+03	.97			
2	3.60	3.61-99.99-99.99-99.99-99.99	3.60	4.359E+03	3.550E+03	1.23			
3	3.83	3.79-99.99-99.99-99.99-99.99	3.81	4.363E+03	3.341E+03	1.31			
4	4.07	4.06-99.99-99.99-99.99-99.99	4.06	4.312E+03	3.022E+03	1.43			
5	4.21	4.40-99.99-99.99-99.99-99.99	4.31	4.307E+03	2.792E+03	1.54			

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	8.52	7.39	1.64	2.18	2.17	5.85	2.17		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	2.98	2.91-99.99-99.99-99.99-99.99	2.91	2.216E+03	3.359E+03	.66			
2	3.18	3.17-99.99-99.99-99.99-99.99	3.18	2.237E+03	2.790E+03	.80			
3	3.38	3.33-99.99-99.99-99.99-99.99	3.36	2.245E+03	2.637E+03	.85			
4	3.57	3.58-99.99-99.99-99.99-99.99	3.57	2.217E+03	2.359E+03	.94			
5	3.71	3.87-99.99-99.99-99.99-99.99	3.79	2.212E+03	2.159E+03	1.02			

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	8.53	7.43	1.65	2.18	2.19	5.87	2.18		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	2.93	2.94-99.99-99.99-99.99-99.99	2.93	2.218E+03	3.285E+03	.68			
2	3.18	3.17-99.99-99.99-99.99-99.99	3.17	2.240E+03	2.841E+03	.79			
3	3.40	3.34-99.99-99.99-99.99-99.99	3.37	2.246E+03	2.622E+03	.86			
4	3.58	3.57-99.99-99.99-99.99-99.99	3.57	2.217E+03	2.386E+03	.93			
5	3.72	3.87-99.99-99.99-99.99-99.99	3.80	2.215E+03	2.167E+03	1.02			

NOTE 20 X-Y pairs were stored in plot data file PDFND03

Disk number = 15  
File name: GFND84

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.42	9.60	1.96	2.26	2.23	7.73	2.24

Tube #	Wall Temperatures (Deg C)	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	2 3 4 5 6				
5	11.77 16.22-99.99-99.99-99.99-99.99	13.99	9.631E+04	9.363E+03	10.48

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.37	9.77	1.96	2.26	2.23	7.70	2.24

Tube #	Wall Temperatures (Deg C)	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	2 3 4 5 6				
5	11.77 16.21-99.99-99.99-99.99-99.99	13.99	9.643E+04	9.393E+03	10.48

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.23	9.68	1.97	2.26	2.24	7.63	2.25

Tube #	Wall Temperatures (Deg C)	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	2 3 4 5 6				
5	11.08 14.76-99.99-99.99-99.99-99.99	12.92	8.049E+04	8.450E+03	9.53

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.20	9.67	1.97	2.26	2.24	7.61	2.25

Tube #	Wall Temperatures (Deg C)	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	2 3 4 5 6				
5	11.08 14.72-99.99-99.99-99.99-99.99	12.90	8.044E+04	8.470E+03	9.50

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.15	9.64	1.89	2.21	2.19	7.56	2.20

Tube #	Wall Temperatures (Deg C)	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	2 3 4 5 6				
5	9.76 12.31-99.99-99.99-99.99-99.99	11.03	5.641E+04	7.174E+03	7.86

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.15	9.63	1.89	2.21	2.18	7.56	2.19

Tube #	Wall Temperatures (Deg C)	Twave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Theta (K)
1	2 3 4 5 6				
5	9.76 12.31-99.99-99.99-99.99-99.99	11.03	5.624E+04	7.148E+03	7.87

Data Set Number = 7

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.14	9.63	1.81	2.15	2.12	7.53	2.14

Tube #	Wall Temperatures (Deg C)						Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	8.51	10.13	-99.99	-99.99	-99.99	-99.99	9.32	3.846E+04	6.067E+03	6.34

Data Set Number = 8

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.13	9.62	1.80	2.14	2.11	7.52	2.13

Tube #	Wall Temperatures (Deg C)						Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	8.51	10.13	-99.99	-99.99	-99.99	-99.99	9.32	3.841E+04	6.053E+03	6.35

Data Set Number = 9

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.18	9.61	1.83	2.20	2.18	7.54	2.19

Tube #	Wall Temperatures (Deg C)						Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	7.44	8.47	-99.99	-99.99	-99.99	-99.99	7.96	2.511E+04	5.006E+03	5.02

Data Set Number = 10

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.18	9.61	1.82	2.19	2.17	7.54	2.18

Tube #	Wall Temperatures (Deg C)						Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	7.44	8.47	-99.99	-99.99	-99.99	-99.99	7.96	2.514E+04	4.999E+03	5.03

Data Set Number = 11

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.21	9.54	1.82	2.20	2.19	7.52	2.20

Tube #	Wall Temperatures (Deg C)						Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	6.65	7.34	-99.99	-99.99	-99.99	-99.99	7.00	1.654E+04	4.028E+03	4.11

Data Set Number = 12

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.20	9.54	1.83	2.21	2.20	7.53	2.21

Tube #	Wall Temperatures (Deg C)						Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	6.68	7.36	-99.99	-99.99	-99.99	-99.99	7.02	1.664E+04	4.037E+03	4.12

Data Set Number = 13

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.25	9.50	1.78	2.18	2.17	7.51	2.17

Tube #	Wall Temperatures (Deg C)						Twave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Theta (K)
5	6.08	6.53	-99.99	-99.99	-99.99	-99.99	6.31	1.117E+04	3.208E+03	3.48

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	11.26	9.51	1.78	2.18	2.18	7.51	2.18			
Tube	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	6.09	6.53-99.99-99.99-99.99-99.99					6.31	1.116E+04	3.207E+03	3.48

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	11.56	9.90	1.83	2.25	2.23	7.76	2.24			
Tube	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	5.80	6.09-99.99-99.99-99.99-99.99					5.94	7.879E+03	2.562E+03	3.08

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	11.60	10.01	1.83	2.24	2.23	7.81	2.23			
Tube	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	5.80	6.08-99.99-99.99-99.99-99.99					5.94	7.872E+03	2.560E+03	3.07

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	11.99	10.81	1.82	2.26	2.24	8.21	2.25			
Tube	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	5.37	5.53-99.99-99.99-99.99-99.99					5.45	4.475E+03	1.719E+03	2.60

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.20	11.28	1.77	2.23	2.22	8.42	2.22			
Tube	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	4.94	4.99-99.99-99.99-99.99-99.99					4.96	2.256E+03	1.049E+03	2.15

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.22	11.31	1.77	2.22	2.21	8.44	2.22			
Tube	Wall Temperatures (Deg C)						Twave	Qdp	H	Theta
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
5	4.94	5.00-99.99-99.99-99.99-99.99					4.97	2.255E+03	1.043E+03	2.16

NOTE: 20 data runs were stored in file OFND84

NOTE: 20 X-Y pairs were stored in plot data file POFND84

Disk number = 15  
 File name: IFNC85  
 This data set taken on : 05:01:11:24:48

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.74	13.83	2.12	2.21	2.13	10.23	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.57 4.82-99.99-99.99-99.99-99.99	4.69	1.579E+03	6.422E+02	2.46

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.75	13.91	1.76	2.23	2.10	10.14	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.63 4.89-99.99-99.99-99.99-99.99	4.76	1.575E+03	6.247E+02	2.52

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.10	14.13	1.22	2.38	2.12	10.15	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.74 6.99-99.99-99.99-99.99-99.99	6.87	3.101E+03	6.836E+02	4.54

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.14	14.17	1.21	2.33	2.16	10.17	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.69 6.98-99.99-99.99-99.99-99.99	6.84	3.102E+03	6.880E+02	4.51

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.30	14.21	1.17	2.31	2.25	10.23	2.28

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.61 9.01-99.99-99.99-99.99-99.99	8.81	4.878E+03	7.582E+02	6.43

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.30	14.16	1.43	2.39	2.21	10.30	2.30

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.58 9.90-99.99-99.99-99.99-99.99	8.74	4.889E+03	7.707E+02	6.34

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	15.08	13.66	.85	2.42	2.28	9.86	2.35

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	10.76	11.15	-99.99	-99.99	-99.99	-99.99	10.96	7.091E+03	8.345E+02	8.50

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	15.06	13.61	.84	2.46	2.30	9.83	2.38

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	10.84	11.26	-99.99	-99.99	-99.99	-99.99	11.05	7.057E+03	8.246E+02	8.56

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	14.79	13.01	1.43	2.22	2.16	9.74	2.19

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	12.16	12.61	-99.99	-99.99	-99.99	-99.99	12.38	9.192E+03	9.133E+02	10.06

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	14.76	12.96	.57	2.20	2.05	9.43	2.12

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	12.06	12.50	-99.99	-99.99	-99.99	-99.99	12.28	9.178E+03	9.155E+02	10.02

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	14.59	12.66	.33	2.32	2.18	9.19	2.25

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	14.70	15.34	-99.99	-99.99	-99.99	-99.99	15.02	1.197E+04	9.484E+02	12.62

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	14.57	12.65	.27	2.27	2.20	9.16	2.24

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	14.66	15.17	-99.99	-99.99	-99.99	-99.99	14.92	1.199E+04	9.569E+02	12.53

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	14.35	12.41	.03	2.20	2.14	8.93	2.17

Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	16.76	17.50	-99.99	-99.99	-99.99	-99.99	17.13	1.502E+04	1.016E+03	14.78

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.33	12.39	.02	2.28	2.13	8.91	2.21	

Tube #	Wall	Temperatures (Deg C)	Tnave	Qdp	H	Thetab
1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	16.66	17.26-99.99	99.99-99.99	99.99-99.99	16.96	1.500E+04 1.029E+03 14.58

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.16	12.34	-.03	2.14	2.15	8.83	2.14	

Tube #	Wall	Temperatures (Deg C)	Tnave	Qdp	H	Thetab
1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	20.10	20.81-99.99	99.99-99.99	99.99-99.99	20.45	1.937E+04 1.070E+03 18.10

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.15	12.35	-.03	2.24	2.18	8.82	2.21	

Tube #	Wall	Temperatures (Deg C)	Tnave	Qdp	H	Thetab
1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	20.07	21.14-99.99	99.99-99.99	99.99-99.99	20.61	1.937E+04 1.065E+03 18.20

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.72	12.91	1.95	2.19	2.18	9.86	2.18	

Tube #	Wall	Temperatures (Deg C)	Tnave	Qdp	H	Thetab
1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	6.59	6.86-99.99	99.99-99.99	99.99-99.99	6.72	2.632E+04 6.137E+03 4.29

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.68	12.85	1.95	2.20	2.20	9.83	2.20	

Tube #	Wall	Temperatures (Deg C)	Tnave	Qdp	H	Thetab
1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	6.59	6.87-99.99	99.99-99.99	99.99-99.99	6.73	2.632E+04 6.139E+03 4.29

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.26	12.32	1.97	2.20	2.19	9.52	2.20	

Tube #	Wall	Temperatures (Deg C)	Tnave	Qdp	H	Thetab
1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	8.09	8.45-99.99	99.99-99.99	99.99-99.99	8.27	4.473E+04 7.852E+03 5.70

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	14.26	12.31	1.97	2.20	2.20	9.51	2.20	

Tube #	Wall	Temperatures (Deg C)	Tnave	Qdp	H	Thetab
1	2	3	4	5	6 (Deg C)	(W/m^2) (W/m^2.K) (K)
1	8.11	8.45-99.99	99.99-99.99	99.99-99.99	8.28	4.458E+04 7.812E+03 5.71

Data Set Number = 21

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.14	12.16	2.04	2.24	2.23	9.45	2.24

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	9.50 9.85-99.99-99.99-99.99-99.99	9.68	6.522E+04	9.427E+03	6.92

Data Set Number = 22

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.13	12.13	2.02	2.23	2.23	9.43	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	9.47 9.85-99.99-99.99-99.99-99.99	9.66	6.509E+04	9.423E+03	6.91

Data Set Number = 23

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.95	11.91	2.02	2.21	2.20	9.29	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	10.77 11.05-99.99-99.99-99.99-99.99	10.91	9.224E+04	1.155E+04	7.99

Data Set Number = 24

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.93	11.88	2.01	2.20	2.19	9.28	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	10.77 11.01-99.99-99.99-99.99-99.99	10.89	9.205E+04	1.154E+04	7.98

NOTE: 24 X-Y pairs were stored in plot data file PIFNC85

Disk number = 16

File name: DFND086

This data set taken on : 05:01:20 17:53

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.05	10.17	1.86	2.16	2.15	8.03	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	10.78 10.83-99.99-99.99-99.99-99.99	10.80	9.805E+04	1.242E+04	7.89

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.02	10.17	1.86	2.15	2.14	8.02	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	10.80 10.83-99.99-99.99-99.99-99.99	10.81	9.797E+04	1.239E+04	7.91

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.73	10.27	1.95	2.23	2.23	7.98	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	10.07 10.23-99.99-99.99-99.99-99.99	10.15	7.953E+04	1.090E+04	7.29

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.73	10.27	1.95	2.23	2.23	7.98	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	10.05 10.21-99.99-99.99-99.99-99.99	10.13	7.946E+04	1.092E+04	7.28

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.84	10.24	1.92	2.22	2.21	8.00	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	8.98 9.27-99.99-99.99-99.99-99.99	9.12	5.720E+04	8.883E+03	6.44

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.86	10.23	1.92	2.23	2.21	8.00	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	8.98 9.28-99.99-99.99-99.99-99.99	9.13	5.728E+04	8.892E+03	6.44

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.12	10.17	1.87	2.18	2.17	8.05	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	7.80 8.09-99.99-99.99-99.99-99.99	7.94	3.841E+04	7.067E+03	5.44

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.14	10.18	1.87	2.19	2.18	8.05	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	7.81 8.11-99.99-99.99-99.99-99.99	7.96	3.842E+04	7.056E+03	5.45

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.40	10.68	1.72	2.10	2.09	8.28	2.09

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	6.67 6.91-99.99-99.99-99.99-99.99	6.79	2.483E+04	5.569E+03	4.46

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.43	10.77	1.72	2.10	2.08	8.31	2.09

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.65	6.92	99.99	99.99	99.99	99.99	6.78	2.483E+04	5.569E+03	4.46

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.51	11.38	1.73	2.13	2.12	8.54	2.12

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.03	6.19	99.99	99.99	99.99	99.99	6.11	1.588E+04	4.164E+03	3.81

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.52	11.43	1.75	2.14	2.13	8.57	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.04	6.20	99.99	99.99	99.99	99.99	6.12	1.586E+04	4.154E+03	3.82

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.55	11.65	1.71	2.13	2.11	8.63	2.12

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.57	5.63	99.99	99.99	99.99	99.99	5.60	1.059E+04	3.167E+03	3.34

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.55	11.66	1.75	2.15	2.12	8.65	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.57	5.67	99.99	99.99	99.99	99.99	5.62	1.056E+04	3.153E+03	3.35

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.55	11.74	1.73	2.18	2.16	8.67	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.21	5.28	99.99	99.99	99.99	99.99	5.24	7.414E+03	2.500E+03	2.97

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.55	11.74	1.73	2.18	2.16	8.67	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.23	5.29	99.99	99.99	99.99	99.99	5.26	7.405E+03	2.484E+03	2.98

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.55	11.80	1.66	2.16	2.14	8.67	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	4.72 4.79-99.99-99.99-99.99-99.99	4.76	4.280E+03	1.700E+03	2.52

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.56	11.80	1.66	2.15	2.15	8.67	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	4.74 4.80-99.99-99.99-99.99-99.99	4.77	4.280E+03	1.692E+03	2.53

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.56	11.83	1.54	2.15	2.10	8.64	2.13

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	4.17 4.25-99.99-99.99-99.99-99.99	4.21	1.998E+03	9.935E+02	2.01

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.55	11.83	1.54	2.15	2.10	8.64	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	4.16 4.23-99.99-99.99-99.99-99.99	4.20	1.999E+03	9.985E+02	2.00

NOTE: 20 X-Y pairs were stored in plot data file PDFND86

Dist number = 16

File name DFND87

This data set taken on : 05 01:19:16:38

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.94	10.41	1.89	2.21	2.21	8.08	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	10.67 10.59-99.99-99.99-99.99-99.99	10.63	9.599E+04	1.250E+04	7.68
2	13.28 13.86-99.99-99.99-99.99-99.99	13.57	9.616E+04	9.169E+03	10.49

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.93	10.40	1.90	2.22	2.21	8.08	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	2 3 4 5 6				
1	10.66 10.58-99.99-99.99-99.99-99.99	10.62	9.578E+04	1.249E+04	7.67
2	13.29 13.88-99.99-99.99-99.99-99.99	13.58	9.501E+04	9.144E+03	10.50

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.98	10.48	1.92	2.24	2.23	8.13	2.24

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.80	9.85	-99.99	-99.99	-99.99	-99.99	9.82	7.753E+04	1.112E+04	6.97
2	12.12	12.61	-99.99	-99.99	-99.99	-99.99	12.37	7.765E+04	8.270E+03	9.39

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.98	10.48	1.92	2.24	2.24	8.13	2.24

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.82	9.85	-99.99	-99.99	-99.99	-99.99	9.84	7.761E+04	1.111E+04	6.99
2	12.13	12.63	-99.99	-99.99	-99.99	-99.99	12.38	7.777E+04	8.277E+03	9.40

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.78	10.60	1.83	2.16	2.15	8.07	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.34	8.52	-99.99	-99.99	-99.99	-99.99	8.43	5.289E+04	9.057E+03	5.84
2	10.28	10.57	-99.99	-99.99	-99.99	-99.99	10.42	5.299E+04	6.878E+03	7.71

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.79	10.62	1.83	2.16	2.15	8.08	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.36	8.50	-99.99	-99.99	-99.99	-99.99	8.43	5.284E+04	9.046E+03	5.84
2	10.26	10.57	-99.99	-99.99	-99.99	-99.99	10.42	5.297E+04	6.881E+03	7.70

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.62	10.60	1.78	2.13	2.13	8.00	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.26	7.51	-99.99	-99.99	-99.99	-99.99	7.39	3.671E+04	7.435E+03	4.94
2	8.83	9.01	-99.99	-99.99	-99.99	-99.99	8.92	3.682E+04	5.805E+03	6.34

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.63	10.63	1.78	2.13	2.12	8.01	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.27	7.50	-99.99	-99.99	-99.99	-99.99	7.38	3.665E+04	7.421E+03	4.94
2	8.85	9.01	-99.99	-99.99	-99.99	-99.99	8.93	3.678E+04	5.782E+03	6.36

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.67	10.58	1.78	2.14	2.14	8.01	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.26 6.44-99.99-99.99-99.99-99.99	6.35	2.331E+04	5.844E+03	3.99
2	7.49 7.54-99.99-99.99-99.99-99.99	7.52	2.342E+04	4.660E+03	5.03

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.70	10.57	1.79	2.14	2.14	8.02	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.28 6.44-99.99-99.99-99.99-99.99	6.36	2.333E+04	5.841E+03	3.99
2	7.49 7.55-99.99-99.99-99.99-99.99	7.52	2.345E+04	4.659E+03	5.03

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.06	10.58	1.78	2.16	2.16	8.14	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.37 5.50-99.99-99.99-99.99-99.99	5.44	1.496E+04	4.809E+03	3.11
2	6.59 6.58-99.99-99.99-99.99-99.99	6.58	1.508E+04	3.652E+03	4.13

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.09	10.62	1.78	2.15	2.16	8.16	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.39 5.51-99.99-99.99-99.99-99.99	5.45	1.505E+04	4.809E+03	3.13
2	6.61 6.60-99.99-99.99-99.99-99.99	6.60	1.516E+04	3.651E+03	4.15

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.37	11.15	1.75	2.16	2.16	8.42	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.67 4.76-99.99-99.99-99.99-99.99	4.71	9.814E+03	4.050E+03	2.42
2	5.97 5.92-99.99-99.99-99.99-99.99	5.94	9.905E+03	2.810E+03	3.52

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.38	11.21	1.74	2.16	2.16	8.44	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.66 4.76-99.99-99.99-99.99-99.99	4.71	9.810E+03	4.053E+03	2.42
2	5.97 5.92-99.99-99.99-99.99-99.99	5.94	9.904E+03	2.809E+03	3.53

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.50	11.58	1.79	2.20	2.20	8.62	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.21	4.30	-99.99	-99.99	-99.99	-99.99	4.25	6.588E+03	3.383E+03	1.95
2	5.59	5.53	-99.99	-99.99	-99.99	-99.99	5.56	6.667E+03	2.134E+03	3.12

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.51	11.62	1.80	2.21	2.21	8.64	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.21	4.30	-99.99	-99.99	-99.99	-99.99	4.25	6.587E+03	3.393E+03	1.94
2	5.59	5.55	-99.99	-99.99	-99.99	-99.99	5.57	6.667E+03	2.132E+03	3.13

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.56	11.76	1.69	2.17	2.15	8.67	2.16

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.59	3.65	-99.99	-99.99	-99.99	-99.99	3.62	3.797E+03	2.760E+03	1.38
2	5.03	4.96	-99.99	-99.99	-99.99	-99.99	5.00	3.860E+03	1.473E+03	2.62

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.57	11.77	1.69	2.16	2.15	8.68	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.58	3.65	-99.99	-99.99	-99.99	-99.99	3.61	3.814E+03	2.774E+03	1.37
2	5.03	4.98	-99.99	-99.99	-99.99	-99.99	5.01	3.877E+03	1.469E+03	2.64

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.60	11.85	1.79	2.17	2.12	8.75	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.23	3.23	-99.99	-99.99	-99.99	-99.99	3.23	1.874E+03	1.850E+03	1.01
2	4.59	4.50	-99.99	-99.99	-99.99	-99.99	4.54	1.918E+03	8.720E+02	2.20

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.60	11.85	1.81	2.17	2.13	8.75	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.23	3.23	-99.99	-99.99	-99.99	-99.99	3.23	1.872E+03	1.857E+03	1.01
2	4.58	4.50	-99.99	-99.99	-99.99	-99.99	4.54	1.915E+03	8.736E+02	2.19

NOTE: 20 X-Y pairs were stored in plot data file PDFND07

Disk number = 16  
 File name DFND08  
 This data set taken on : 05:01:16:09:15

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.30	7.59	1.84	2.19	2.20	6.57	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.60	10.55	99.99	99.99	99.99	99.99	10.58	9.078E+04	1.183E+04	7.68
2	12.92	13.48	99.99	99.99	99.99	99.99	13.20	9.074E+04	8.920E+03	10.17
3	13.42	13.75	99.99	99.99	99.99	99.99	13.58	9.008E+04	8.637E+03	10.43

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.29	7.48	1.83	2.18	2.18	6.53	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.55	10.50	99.99	99.99	99.99	99.99	10.53	9.077E+04	1.188E+04	7.64
2	12.91	13.46	99.99	99.99	99.99	99.99	13.18	9.074E+04	8.925E+03	10.17
3	13.42	13.73	99.99	99.99	99.99	99.99	13.57	9.008E+04	8.635E+03	10.43

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.04	7.22	1.74	2.11	2.10	6.34	2.11

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.53	9.59	99.99	99.99	99.99	99.99	9.56	7.211E+04	1.048E+04	6.88
2	11.58	12.02	99.99	99.99	99.99	99.99	11.80	7.207E+04	8.012E+03	8.99
3	12.10	12.20	99.99	99.99	99.99	99.99	12.15	7.158E+04	7.766E+03	9.22

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.03	7.20	1.78	2.12	2.13	6.34	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.55	9.65	99.99	99.99	99.99	99.99	9.60	7.257E+04	1.052E+04	6.90
2	11.62	12.07	99.99	99.99	99.99	99.99	11.85	7.252E+04	8.044E+03	9.01
3	12.15	12.24	99.99	99.99	99.99	99.99	12.20	7.205E+04	7.798E+03	9.24

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.78	7.69	1.81	2.18	2.18	6.42	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.35	8.50	99.99	99.99	99.99	99.99	8.42	5.185E+04	8.911E+03	5.82
2	10.07	10.40	99.99	99.99	99.99	99.99	10.24	5.181E+04	6.905E+03	7.50
3	10.73	10.59	99.99	99.99	99.99	99.99	10.66	5.147E+04	6.603E+03	7.79

Data Set Number = 6

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.79	7.73	1.82	2.18	2.19	6.45	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.38	8.51	99.99	99.99	99.99	99.99	8.44	5.185E+04	8.888E+03	5.83
2	10.09	10.42	99.99	99.99	99.99	99.99	10.25	5.183E+04	6.897E+03	7.51
3	10.74	10.60	99.99	99.99	99.99	99.99	10.67	5.151E+04	6.602E+03	7.80

Data Set Number = 7

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.57	7.84	1.85	2.23	2.23	6.42	2.23			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.15	7.31	99.99	99.99	99.99	99.99	7.23	3.444E+04	7.333E+03	4.70
2	8.56	8.78	99.99	99.99	99.99	99.99	8.67	3.445E+04	5.734E+03	6.01
3	9.23	8.94	99.99	99.99	99.99	99.99	9.09	3.426E+04	5.441E+03	6.30

Data Set Number = 8

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.61	7.79	1.83	2.23	2.22	6.41	2.22			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.16	7.30	99.99	99.99	99.99	99.99	7.23	3.444E+04	7.329E+03	4.70
2	8.56	8.78	99.99	99.99	99.99	99.99	8.67	3.445E+04	5.727E+03	6.02
3	9.24	8.93	99.99	99.99	99.99	99.99	9.09	3.426E+04	5.435E+03	6.30

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.90	7.78	1.73	2.12	2.12	6.47	2.12			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.11	6.21	99.99	99.99	99.99	99.99	6.16	2.240E+04	5.865E+03	3.82
2	7.29	7.41	99.99	99.99	99.99	99.99	7.35	2.243E+04	4.593E+03	4.88
3	7.80	7.58	99.99	99.99	99.99	99.99	7.69	2.232E+04	4.387E+03	5.09

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	9.93	7.79	1.74	2.12	2.13	6.48	2.13			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	6.09	6.21	99.99	99.99	99.99	99.99	6.15	2.243E+04	5.894E+03	3.81
2	7.31	7.42	99.99	99.99	99.99	99.99	7.37	2.245E+04	4.589E+03	4.89
3	7.80	7.56	99.99	99.99	99.99	99.99	7.68	2.234E+04	4.399E+03	5.08

Data Set Number = 11

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	10.27	8.02	1.72	2.14	2.15	6.67	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	5.21	5.27	99.99	99.99	99.99	99.99	5.24	1.376E+04	4.680E+03	2.94
2	6.05	6.11	99.99	99.99	99.99	99.99	6.08	1.379E+04	3.779E+03	3.65
3	6.74	6.59	99.99	99.99	99.99	99.99	6.66	1.274E+04	3.345E+03	4.11

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.31	8.03	1.71	2.13	2.15	6.68	2.14

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.19	5.26	-99.99	-99.99	-99.99	-99.99	5.23	1.378E+04	4.703E+03	2.93	
2	6.05	6.11	-99.99	-99.99	-99.99	-99.99	6.08	1.380E+04	3.780E+03	3.65	
3	6.74	6.59	-99.99	-99.99	-99.99	-99.99	6.67	1.376E+04	3.348E+03	4.11	

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.55	8.21	1.74	2.18	2.18	6.83	2.18

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.66	4.73	-99.99	-99.99	-99.99	-99.99	4.70	8.998E+03	3.756E+03	2.40	
2	5.25	5.32	-99.99	-99.99	-99.99	-99.99	5.29	9.036E+03	3.166E+03	2.85	
3	6.15	6.09	-99.99	-99.99	-99.99	-99.99	6.12	9.016E+03	2.532E+03	3.56	

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.57	8.28	1.75	2.18	2.20	6.87	2.19

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.67	4.73	-99.99	-99.99	-99.99	-99.99	4.70	8.970E+03	3.757E+03	2.39	
2	5.26	5.31	-99.99	-99.99	-99.99	-99.99	5.29	9.005E+03	3.167E+03	2.84	
3	6.18	6.10	-99.99	-99.99	-99.99	-99.99	6.14	8.989E+03	2.521E+03	3.57	

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.72	9.30	1.64	2.13	2.16	7.22	2.15

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.09	4.16	-99.99	-99.99	-99.99	-99.99	4.12	5.959E+03	3.171E+03	1.88	
2	4.53	4.55	-99.99	-99.99	-99.99	-99.99	4.54	5.991E+03	2.767E+03	2.17	
3	5.54	5.50	-99.99	-99.99	-99.99	-99.99	5.52	5.986E+03	1.983E+03	3.02	

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.74	9.36	1.64	2.13	2.15	7.25	2.14

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.09	4.16	-99.99	-99.99	-99.99	-99.99	4.13	5.954E+03	3.157E+03	1.89	
2	4.53	4.52	-99.99	-99.99	-99.99	-99.99	4.53	5.989E+03	2.773E+03	2.16	
3	5.53	5.50	-99.99	-99.99	-99.99	-99.99	5.51	5.984E+03	1.985E+03	3.02	

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.82	9.76	1.59	2.11	2.11	7.40	2.11

Tube #	Wall	Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	3.56	3.60	-99.99	-99.99	-99.99	-99.99	3.58	3.309E+03	2.379E+03	1.39	
2	3.88	3.86	-99.99	-99.99	-99.99	-99.99	3.87	3.339E+03	2.157E+03	1.55	
3	4.97	4.96	-99.99	-99.99	-99.99	-99.99	4.96	3.341E+03	1.327E+03	2.52	

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.85	9.79	1.67	2.13	2.13	7.42	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.60	3.66	-99.99	-99.99	-99.99	-99.99	3.63	3.312E+03	2.327E+03	1.42
2	3.93	3.92	-99.99	-99.99	-99.99	-99.99	3.93	3.339E+03	2.104E+03	1.59
3	5.00	4.99	-99.99	-99.99	-99.99	-99.99	5.00	3.343E+03	1.322E+03	2.53

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.91	9.98	1.67	2.20	2.19	7.52	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.29	3.33	-99.99	-99.99	-99.99	-99.99	3.30	1.627E+03	1.568E+03	1.04
2	3.70	3.74	-99.99	-99.99	-99.99	-99.99	3.72	1.648E+03	1.240E+03	1.33
3	4.52	4.55	-99.99	-99.99	-99.99	-99.99	4.54	1.655E+03	8.210E+02	2.02

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.93	9.99	1.69	2.22	2.20	7.54	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.31	3.33	-99.99	-99.99	-99.99	-99.99	3.32	1.624E+03	1.568E+03	1.04
2	3.73	3.75	-99.99	-99.99	-99.99	-99.99	3.74	1.645E+03	1.237E+03	1.33
3	4.55	4.58	-99.99	-99.99	-99.99	-99.99	4.56	1.651E+03	8.164E+02	2.02

NOTE: 20 X-Y pairs were stored in plot data file PDFN088

Dist number = 16

File name: DFN089

This data set taken on : 05:01:15:14:34

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.87	7.42	1.79	2.16	2.16	6.36	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	10.54	10.54	-99.99	-99.99	-99.99	-99.99	10.54	9.442E+04	1.234E+04	7.65
2	13.01	13.55	-99.99	-99.99	-99.99	-99.99	13.28	9.439E+04	9.193E+03	10.27
3	13.46	14.08	-99.99	-99.99	-99.99	-99.99	13.77	9.372E+04	8.816E+03	10.63
4	12.74	12.26	-99.99	-99.99	-99.99	-99.99	12.50	9.316E+04	1.009E+04	9.23

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.85	7.34	1.78	2.16	2.15	6.32	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	10.54	10.50	-99.99	-99.99	-99.99	-99.99	10.52	9.369E+04	1.227E+04	7.64
2	13.01	13.54	-99.99	-99.99	-99.99	-99.99	13.27	9.369E+04	9.126E+03	10.27
3	13.45	14.05	-99.99	-99.99	-99.99	-99.99	13.75	9.304E+04	8.762E+03	10.62
4	12.73	12.23	-99.99	-99.99	-99.99	-99.99	12.48	9.249E+04	1.003E+04	9.22

Data Set Number = 3

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	9.74	7.08	1.81	2.18	2.19	6.21	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.59	9.71	-99.99	-99.99	-99.99	-99.99	9.65	7.577E+04	1.104E+04	6.87
2	11.75	12.20	-99.99	-99.99	-99.99	-99.99	11.98	7.575E+04	8.358E+03	9.06
3	12.20	12.59	-99.99	-99.99	-99.99	-99.99	12.39	7.524E+04	8.041E+03	9.36
4	11.71	11.34	-99.99	-99.99	-99.99	-99.99	11.52	7.474E+04	8.942E+03	8.36

Data Set Number = 4

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	9.75	7.09	1.81	2.19	2.18	6.22	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.58	9.70	-99.99	-99.99	-99.99	-99.99	9.64	7.588E+04	1.107E+04	6.85
2	11.77	12.22	-99.99	-99.99	-99.99	-99.99	11.99	7.584E+04	8.352E+03	9.08
3	12.20	12.59	-99.99	-99.99	-99.99	-99.99	12.39	7.535E+04	8.054E+03	9.36
4	11.71	11.34	-99.99	-99.99	-99.99	-99.99	11.52	7.486E+04	8.954E+03	8.36

Data Set Number = 5

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	9.64	6.59	1.79	2.18	2.18	6.01	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.25	8.39	-99.99	-99.99	-99.99	-99.99	8.32	5.514E+04	9.689E+03	5.69
2	10.10	10.37	-99.99	-99.99	-99.99	-99.99	10.24	5.508E+04	7.361E+03	7.48
3	10.63	10.85	-99.99	-99.99	-99.99	-99.99	10.74	5.474E+04	6.968E+03	7.86
4	10.37	10.14	-99.99	-99.99	-99.99	-99.99	10.25	5.438E+04	7.505E+03	7.24

Data Set Number = 6

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	9.64	6.53	1.80	2.19	2.18	5.99	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.26	8.44	-99.99	-99.99	-99.99	-99.99	8.35	5.530E+04	9.678E+03	5.71
2	10.10	10.38	-99.99	-99.99	-99.99	-99.99	10.24	5.526E+04	7.390E+03	7.48
3	10.63	10.87	-99.99	-99.99	-99.99	-99.99	10.75	5.492E+04	6.990E+03	7.86
4	10.39	10.17	-99.99	-99.99	-99.99	-99.99	10.28	5.457E+04	7.514E+03	7.26

Data Set Number = 7

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	9.42	6.92	1.82	2.21	2.22	6.05	2.22			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.93	7.05	-99.99	-99.99	-99.99	-99.99	6.99	3.655E+04	8.199E+03	4.46
2	8.41	8.57	-99.99	-99.99	-99.99	-99.99	8.49	3.656E+04	6.272E+03	5.83
3	9.12	9.14	-99.99	-99.99	-99.99	-99.99	9.13	3.634E+04	5.735E+03	6.34
4	9.01	8.96	-99.99	-99.99	-99.99	-99.99	8.98	3.607E+04	5.943E+03	6.07

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.44	6.95	1.82	2.21	2.22	6.07	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.93	7.05	-99.99	-99.99	-99.99	-99.99	6.99	3.660E+04	8.222E+03	4.45
2	8.40	8.57	-99.99	-99.99	-99.99	-99.99	8.48	3.659E+04	6.288E+03	5.82
3	9.14	9.13	-99.99	-99.99	-99.99	-99.99	9.13	3.639E+04	5.738E+03	6.34
4	9.00	8.95	-99.99	-99.99	-99.99	-99.99	8.98	3.613E+04	5.962E+03	6.06

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.39	7.08	1.77	2.18	2.18	6.08	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.98	6.05	-99.99	-99.99	-99.99	-99.99	6.02	2.476E+04	6.866E+03	3.61
2	7.23	7.32	-99.99	-99.99	-99.99	-99.99	7.27	2.477E+04	5.232E+03	4.73
3	8.02	7.84	-99.99	-99.99	-99.99	-99.99	7.93	2.464E+04	4.683E+03	5.26
4	7.83	7.98	-99.99	-99.99	-99.99	-99.99	7.91	2.446E+04	4.786E+03	5.11

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.40	7.08	1.77	2.17	2.18	6.08	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.96	6.03	-99.99	-99.99	-99.99	-99.99	6.00	2.477E+04	6.902E+03	3.59
2	7.22	7.31	-99.99	-99.99	-99.99	-99.99	7.27	2.477E+04	5.241E+03	4.73
3	8.01	7.85	-99.99	-99.99	-99.99	-99.99	7.93	2.465E+04	4.684E+03	5.26
4	7.84	8.01	-99.99	-99.99	-99.99	-99.99	7.92	2.446E+04	4.772E+03	5.13

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.55	7.37	1.73	2.15	2.16	6.22	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.22	5.25	-99.99	-99.99	-99.99	-99.99	5.23	1.538E+04	5.283E+03	2.91
2	6.20	6.25	-99.99	-99.99	-99.99	-99.99	6.22	1.541E+04	4.083E+03	3.77
3	6.63	6.38	-99.99	-99.99	-99.99	-99.99	6.51	1.535E+04	3.906E+03	3.93
4	6.79	7.07	-99.99	-99.99	-99.99	-99.99	6.93	1.522E+04	3.602E+03	4.23

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.59	7.43	1.74	2.15	2.15	6.25	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.22	5.25	-99.99	-99.99	-99.99	-99.99	5.24	1.539E+04	5.275E+03	2.92
2	6.22	6.25	-99.99	-99.99	-99.99	-99.99	6.23	1.541E+04	4.071E+03	3.79
3	6.63	6.40	-99.99	-99.99	-99.99	-99.99	6.52	1.535E+04	3.896E+03	3.94
4	6.80	7.08	-99.99	-99.99	-99.99	-99.99	6.94	1.523E+04	3.596E+03	4.23

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.92	7.62	1.71	2.15	2.17	6.42	2.16

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.69	4.73	-99.99	-99.99	-99.99	-99.99	-99.99	4.71	1.072E+04	4.430E+03	2.42
2	5.47	5.50	-99.99	-99.99	-99.99	-99.99	-99.99	5.48	1.075E+04	3.513E+03	3.06
3	5.74	5.53	-99.99	-99.99	-99.99	-99.99	-99.99	5.64	1.072E+04	3.474E+03	3.08
4	6.19	6.47	-99.99	-99.99	-99.99	-99.99	-99.99	6.33	1.062E+04	2.909E+03	3.65

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.95	7.62	1.70	2.15	2.17	6.42	2.16

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.68	4.72	-99.99	-99.99	-99.99	-99.99	-99.99	4.70	1.070E+04	4.436E+03	2.41
2	5.45	5.47	-99.99	-99.99	-99.99	-99.99	-99.99	5.46	1.073E+04	3.531E+03	3.04
3	5.73	5.53	-99.99	-99.99	-99.99	-99.99	-99.99	5.63	1.070E+04	3.473E+03	3.08
4	6.17	6.44	-99.99	-99.99	-99.99	-99.99	-99.99	6.30	1.060E+04	2.924E+03	3.62

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.23	7.80	1.68	2.15	2.17	6.57	2.16

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.30	4.35	-99.99	-99.99	-99.99	-99.99	-99.99	4.33	7.629E+03	3.715E+03	2.05
2	4.93	4.92	-99.99	-99.99	-99.99	-99.99	-99.99	4.92	7.663E+03	3.037E+03	2.52
3	5.11	4.91	-99.99	-99.99	-99.99	-99.99	-99.99	5.01	7.650E+03	3.081E+03	2.48
4	5.72	6.05	-99.99	-99.99	-99.99	-99.99	-99.99	5.89	7.576E+03	2.344E+03	3.23

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.25	7.83	1.69	2.16	2.18	6.59	2.17

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.32	4.37	-99.99	-99.99	-99.99	-99.99	-99.99	4.34	7.644E+03	3.715E+03	2.06
2	4.93	4.94	-99.99	-99.99	-99.99	-99.99	-99.99	4.94	7.678E+03	3.042E+03	2.52
3	5.13	4.94	-99.99	-99.99	-99.99	-99.99	-99.99	5.03	7.663E+03	3.075E+03	2.49
4	5.74	6.09	-99.99	-99.99	-99.99	-99.99	-99.99	5.91	7.584E+03	2.341E+03	3.24

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.40	8.61	1.64	2.17	2.18	6.88	2.18

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.77	3.83	-99.99	-99.99	-99.99	-99.99	-99.99	3.80	4.446E+03	2.897E+03	1.53
2	4.17	4.15	-99.99	-99.99	-99.99	-99.99	-99.99	4.16	4.476E+03	2.540E+03	1.76
3	4.39	4.22	-99.99	-99.99	-99.99	-99.99	-99.99	4.31	4.475E+03	2.512E+03	1.78
4	5.18	5.45	-99.99	-99.99	-99.99	-99.99	-99.99	5.31	4.428E+03	1.664E+03	2.66

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.42	0.70	1.64	2.18	2.18	6.92	2.18			
Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
1	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	3.78	3.84	99.99	99.99	99.99	99.99	3.81	4.440E+03	2.876E+03	1.54
2	4.18	4.14	99.99	99.99	99.99	99.99	4.16	4.468E+03	2.536E+03	1.76
3	4.42	4.22	99.99	99.99	99.99	99.99	4.32	4.468E+03	2.489E+03	1.80
4	5.17	5.44	99.99	99.99	99.99	99.99	5.31	4.422E+03	1.669E+03	2.65

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.55	9.32	1.62	2.19	2.19	7.16	2.19			
Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	3.34	3.31	99.99	99.99	99.99	99.99	3.32	2.129E+03	2.010E+03	1.06
2	3.61	3.54	99.99	99.99	99.99	99.99	3.58	2.153E+03	1.820E+03	1.18
3	4.00	3.83	99.99	99.99	99.99	99.99	3.91	2.155E+03	1.547E+03	1.39
4	4.74	4.90	99.99	99.99	99.99	99.99	4.82	2.133E+03	9.834E+02	2.17

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.57	9.37	1.62	2.19	2.18	7.19	2.19			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	3.32	3.28	99.99	99.99	99.99	99.99	3.30	2.131E+03	2.047E+03	1.04
2	3.59	3.51	99.99	99.99	99.99	99.99	3.55	2.156E+03	1.855E+03	1.16
3	3.98	3.82	99.99	99.99	99.99	99.99	3.90	2.156E+03	1.558E+03	1.39
4	4.74	4.88	99.99	99.99	99.99	99.99	4.81	2.134E+03	9.864E+02	2.16

NOTE: 20 X-Y pairs were stored in plot data file DFND089

Disl number = 16

File name DFND90

This data set taken on - 05-01-14:17:33

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.32	6.92	1.00	2.18	2.17	6.01	2.18			
Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	10.54	10.49	99.99	99.99	99.99	99.99	10.51	9.226E+04	1.211E+04	7.62
2	12.92	13.43	99.99	99.99	99.99	99.99	13.17	9.221E+04	9.003E+03	10.15
3	13.35	13.85	99.99	99.99	99.99	99.99	13.60	9.155E+04	8.760E+03	10.45
4	12.84	12.31	99.99	99.99	99.99	99.99	12.57	9.100E+04	9.786E+03	9.30
5	11.36	15.60	99.99	99.99	99.99	99.99	13.48	9.114E+04	9.044E+03	10.08

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.27	6.86	1.80	2.18	2.17	5.97	2.18			
Tube #	Wall	Temperatures (Deg C)				Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	10.53	10.49	99.99	99.99	99.99	99.99	10.51	9.234E+04	1.212E+04	7.62
2	12.91	13.42	99.99	99.99	99.99	99.99	13.17	9.230E+04	9.097E+03	10.15
3	13.34	13.83	99.99	99.99	99.99	99.99	13.58	9.169E+04	8.784E+03	10.44
4	12.82	12.29	99.99	99.99	99.99	99.99	12.55	9.112E+04	9.814E+03	9.28
5	11.36	15.60	99.99	99.99	99.99	99.99	13.48	9.119E+04	9.046E+03	10.08

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.33	6.84	1.91	2.31	2.30	6.03	2.30

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.56	9.70	-99.99	-99.99	-99.99	-99.99	9.63	7.280E+04	1.078E+04	6.75
2	11.67	12.05	-99.99	-99.99	-99.99	-99.99	11.86	7.278E+04	8.227E+03	8.85
3	12.01	12.26	-99.99	-99.99	-99.99	-99.99	12.13	7.225E+04	8.031E+03	9.00
4	11.76	11.30	-99.99	-99.99	-99.99	-99.99	11.53	7.181E+04	8.687E+03	8.27
5	10.68	14.06	-99.99	-99.99	-99.99	-99.99	12.37	7.186E+04	8.003E+03	8.98

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.35	6.84	1.93	2.32	2.31	6.04	2.31

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.60	9.69	-99.99	-99.99	-99.99	-99.99	9.64	7.274E+04	1.077E+04	6.75
2	11.67	12.05	-99.99	-99.99	-99.99	-99.99	11.86	7.272E+04	8.226E+03	8.84
3	12.01	12.27	-99.99	-99.99	-99.99	-99.99	12.14	7.222E+04	8.031E+03	8.99
4	11.76	11.32	-99.99	-99.99	-99.99	-99.99	11.54	7.174E+04	8.674E+03	8.27
5	10.70	14.07	-99.99	-99.99	-99.99	-99.99	12.38	7.179E+04	7.990E+03	8.99

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.41	6.26	1.77	2.17	2.17	5.81	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.89	8.07	-99.99	-99.99	-99.99	-99.99	7.98	5.080E+04	9.422E+03	5.39
2	9.61	9.87	-99.99	-99.99	-99.99	-99.99	9.74	5.079E+04	7.231E+03	7.02
3	10.06	10.10	-99.99	-99.99	-99.99	-99.99	10.08	5.049E+04	6.979E+03	7.23
4	10.07	9.78	-99.99	-99.99	-99.99	-99.99	9.92	5.015E+04	7.213E+03	6.95
5	9.52	11.85	-99.99	-99.99	-99.99	-99.99	10.69	5.016E+04	6.612E+03	7.59

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.41	6.25	1.76	2.17	2.16	5.80	2.16

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.88	8.06	-99.99	-99.99	-99.99	-99.99	7.97	5.100E+04	9.467E+03	5.39
2	9.60	9.85	-99.99	-99.99	-99.99	-99.99	9.73	5.101E+04	7.273E+03	7.01
3	10.07	10.06	-99.99	-99.99	-99.99	-99.99	10.08	5.069E+04	7.007E+03	7.23
4	10.05	9.77	-99.99	-99.99	-99.99	-99.99	9.91	5.033E+04	7.250E+03	6.94
5	9.56	11.85	-99.99	-99.99	-99.99	-99.99	10.70	5.033E+04	6.617E+03	7.61

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.27	6.44	1.75	2.15	2.16	5.82	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.64	6.72	-99.99	-99.99	-99.99	-99.99	6.68	3.513E+04	8.327E+03	4.22
2	7.95	8.17	-99.99	-99.99	-99.99	-99.99	8.07	3.515E+04	6.420E+03	5.47
3	8.66	8.53	-99.99	-99.99	-99.99	-99.99	8.60	3.494E+04	5.945E+03	5.88
4	8.77	8.60	-99.99	-99.99	-99.99	-99.99	8.69	3.468E+04	5.938E+03	5.84
5	8.60	10.12	-99.99	-99.99	-99.99	-99.99	9.36	3.468E+04	5.434E+03	6.38

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.27	6.45	1.76	2.15	2.17	5.83	2.16			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.64	6.72	-99.99	-99.99	-99.99	-99.99	6.68	3.519E+04	8.350E+03	4.21
2	7.98	8.16	-99.99	-99.99	-99.99	-99.99	8.07	3.520E+04	6.429E+03	5.47
3	8.69	8.55	-99.99	-99.99	-99.99	-99.99	8.62	3.499E+04	5.942E+03	5.89
4	8.78	8.61	-99.99	-99.99	-99.99	-99.99	8.70	3.475E+04	5.947E+03	5.84
5	8.61	10.11	-99.99	-99.99	-99.99	-99.99	9.36	3.473E+04	5.446E+03	6.38

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.20	6.62	1.79	2.21	2.21	5.87	2.21			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.67	5.68	-99.99	-99.99	-99.99	-99.99	5.68	2.244E+04	6.896E+03	3.25
2	6.74	6.84	-99.99	-99.99	-99.99	-99.99	6.79	2.247E+04	5.304E+03	4.24
3	7.46	7.32	-99.99	-99.99	-99.99	-99.99	7.39	2.236E+04	4.750E+03	4.71
4	7.61	7.66	-99.99	-99.99	-99.99	-99.99	7.64	2.219E+04	4.597E+03	4.83
5	7.74	8.61	-99.99	-99.99	-99.99	-99.99	8.18	2.218E+04	4.235E+03	5.24

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.22	6.62	1.80	2.21	2.21	5.88	2.21			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	5.71	5.69	-99.99	-99.99	-99.99	-99.99	5.70	2.247E+04	6.866E+03	3.27
2	6.75	6.86	-99.99	-99.99	-99.99	-99.99	6.80	2.249E+04	5.299E+03	4.24
3	7.49	7.32	-99.99	-99.99	-99.99	-99.99	7.41	2.239E+04	4.744E+03	4.72
4	7.63	7.66	-99.99	-99.99	-99.99	-99.99	7.64	2.221E+04	4.599E+03	4.83
5	7.75	8.62	-99.99	-99.99	-99.99	-99.99	8.18	2.219E+04	4.234E+03	5.24

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.39	7.08	1.72	2.16	2.18	6.06	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.93	4.96	-99.99	-99.99	-99.99	-99.99	4.94	1.398E+04	5.332E+03	2.62
2	5.77	5.86	-99.99	-99.99	-99.99	-99.99	5.81	1.401E+04	4.171E+03	3.36
3	6.28	6.10	-99.99	-99.99	-99.99	-99.99	6.19	1.396E+04	3.867E+03	3.61
4	6.33	6.44	-99.99	-99.99	-99.99	-99.99	6.38	1.384E+04	3.764E+03	3.68
5	6.82	7.33	-99.99	-99.99	-99.99	-99.99	7.07	1.382E+04	3.262E+03	4.24

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.42	7.13	1.73	2.16	2.17	6.09	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6 (Deg C)		(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.94	4.95	-99.99	-99.99	-99.99	-99.99	4.95	1.395E+04	5.317E+03	2.62
2	5.77	5.86	-99.99	-99.99	-99.99	-99.99	5.81	1.398E+04	4.160E+03	3.36
3	6.28	6.12	-99.99	-99.99	-99.99	-99.99	6.20	1.394E+04	3.855E+03	3.62
4	6.32	6.42	-99.99	-99.99	-99.99	-99.99	6.37	1.382E+04	3.773E+03	3.66
5	6.81	7.33	-99.99	-99.99	-99.99	-99.99	7.07	1.380E+04	3.262E+03	4.23

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.74	7.24	1.67	2.13	2.16	6.22	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.41	4.43	-99.99	-99.99	-99.99	-99.99	4.42	9.434E+03	4.383E+03	2.15
2	5.05	5.11	-99.99	-99.99	-99.99	-99.99	5.08	9.464E+03	3.524E+03	2.69
3	5.42	5.28	-99.99	-99.99	-99.99	-99.99	5.35	9.439E+03	3.340E+03	2.83
4	5.51	5.57	-99.99	-99.99	-99.99	-99.99	5.54	9.350E+03	3.240E+03	2.89
5	6.20	6.57	-99.99	-99.99	-99.99	-99.99	6.38	9.346E+03	2.595E+03	3.60

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.79	7.27	1.67	2.14	2.16	6.24	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.39	4.45	-99.99	-99.99	-99.99	-99.99	4.42	9.409E+03	4.376E+03	2.15
2	5.04	5.11	-99.99	-99.99	-99.99	-99.99	5.08	9.442E+03	3.523E+03	2.68
3	5.42	5.28	-99.99	-99.99	-99.99	-99.99	5.35	9.419E+03	3.336E+03	2.82
4	5.51	5.58	-99.99	-99.99	-99.99	-99.99	5.54	9.331E+03	3.231E+03	2.89
5	6.20	6.59	-99.99	-99.99	-99.99	-99.99	6.40	9.325E+03	2.581E+03	3.61

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.06	7.52	1.66	2.17	2.20	6.42	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.01	4.06	-99.99	-99.99	-99.99	-99.99	4.03	6.245E+03	3.569E+03	1.75
2	4.55	4.56	-99.99	-99.99	-99.99	-99.99	4.56	6.274E+03	2.928E+03	2.14
3	4.83	4.71	-99.99	-99.99	-99.99	-99.99	4.77	6.271E+03	2.815E+03	2.23
4	5.06	5.03	-99.99	-99.99	-99.99	-99.99	5.05	6.209E+03	2.616E+03	2.37
5	5.76	6.02	-99.99	-99.99	-99.99	-99.99	5.89	6.200E+03	2.007E+03	3.09

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.09	7.58	1.68	2.19	2.21	6.45	2.20			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.02	4.07	-99.99	-99.99	-99.99	-99.99	4.05	6.262E+03	3.584E+03	1.75
2	4.56	4.58	-99.99	-99.99	-99.99	-99.99	4.57	6.294E+03	2.938E+03	2.14
3	4.86	4.72	-99.99	-99.99	-99.99	-99.99	4.79	6.286E+03	2.819E+03	2.23
4	5.08	5.04	-99.99	-99.99	-99.99	-99.99	5.06	6.221E+03	2.623E+03	2.37
5	5.78	6.04	-99.99	-99.99	-99.99	-99.99	5.91	6.217E+03	2.010E+03	3.09

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.28	8.50	1.65	2.23	2.23	6.84	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.59	3.60	-99.99	-99.99	-99.99	-99.99	3.59	3.602E+03	2.813E+03	1.28
2	3.95	3.92	-99.99	-99.99	-99.99	-99.99	3.94	3.628E+03	2.426E+03	1.50
3	4.24	4.09	-99.99	-99.99	-99.99	-99.99	4.16	3.629E+03	2.274E+03	1.60
4	4.60	4.49	-99.99	-99.99	-99.99	-99.99	4.55	3.592E+03	1.942E+03	1.85
5	5.26	5.39	-99.99	-99.99	-99.99	-99.99	5.33	3.588E+03	1.435E+03	2.50

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.30	8.68	1.63	2.21	2.21	6.87	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	3.57	3.58	-99.99	-99.99	-99.99	-99.99	3.57	3.603E+03	2.811E+03	1.28
2	3.93	3.89	-99.99	-99.99	-99.99	-99.99	3.91	3.630E+03	2.433E+03	1.49
3	4.22	4.06	-99.99	-99.99	-99.99	-99.99	4.14	3.637E+03	2.287E+03	1.59
4	4.58	4.46	-99.99	-99.99	-99.99	-99.99	4.52	3.596E+03	1.956E+03	1.84
5	5.22	5.36	-99.99	-99.99	-99.99	-99.99	5.29	3.588E+03	1.443E+03	2.49

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.42	9.22	1.58	2.18	2.17	7.08	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	3.17	3.15	-99.99	-99.99	-99.99	-99.99	3.16	1.847E+03	2.016E+03	.92
2	3.48	3.41	-99.99	-99.99	-99.99	-99.99	3.44	1.867E+03	1.745E+03	1.07
3	3.88	3.68	-99.99	-99.99	-99.99	-99.99	3.78	1.873E+03	1.466E+03	1.28
4	4.35	4.33	-99.99	-99.99	-99.99	-99.99	4.34	1.852E+03	1.083E+03	1.71
5	4.62	4.74	-99.99	-99.99	-99.99	-99.99	4.68	1.849E+03	9.619E+02	1.92

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.43	9.27	1.56	2.18	2.16	7.09	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	3.17	3.14	-99.99	-99.99	-99.99	-99.99	3.16	1.852E+03	2.015E+03	.92
2	3.48	3.41	-99.99	-99.99	-99.99	-99.99	3.45	1.874E+03	1.738E+03	1.08
3	3.85	3.68	-99.99	-99.99	-99.99	-99.99	3.76	1.880E+03	1.482E+03	1.27
4	4.31	4.27	-99.99	-99.99	-99.99	-99.99	4.29	1.856E+03	1.117E+03	1.66
5	4.56	4.70	-99.99	-99.99	-99.99	-99.99	4.63	1.855E+03	9.879E+02	1.88

NOTE: 20 X-Y pairs were stored in plot data file PDFND90

Disk number = 16

File name: DFND91

This data set taken on : 05:01:13:08:59

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.42	5.82	1.77	2.24	2.25	5.00	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)					
1	2	3	4	5	6					
1	9.86	9.95	-99.99	-99.99	-99.99	-99.99	9.91	8.696E+04	1.245E+04	6.98
2	12.29	12.76	-99.99	-99.99	-99.99	-99.99	12.52	8.688E+04	9.173E+03	9.47
3	12.55	12.88	-99.99	-99.99	-99.99	-99.99	12.71	8.634E+04	9.052E+03	9.54
4	12.04	11.50	-99.99	-99.99	-99.99	-99.99	11.77	8.578E+04	1.013E+04	8.47
5	10.72	14.82	-99.99	-99.99	-99.99	-99.99	12.77	8.581E+04	9.187E+03	9.34

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.34	5.78	1.88	2.26	2.26	4.98	2.26			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.90	9.98	-99.99	-99.99	-99.99	-99.99	9.94	8.713E+04	1.245E+04	7.00
2	12.33	12.79	-99.99	-99.99	-99.99	-99.99	12.56	8.706E+04	9.177E+03	9.49
3	12.56	12.95	-99.99	-99.99	-99.99	-99.99	12.76	8.646E+04	9.042E+03	9.56
4	12.08	11.55	-99.99	-99.99	-99.99	-99.99	11.82	8.596E+04	1.012E+04	8.50
5	10.73	14.85	-99.99	-99.99	-99.99	-99.99	12.79	8.600E+04	9.209E+03	9.34

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.13	5.75	1.70	2.19	2.20	4.86	2.20			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.93	9.10	-99.99	-99.99	-99.99	-99.99	9.02	7.014E+04	1.119E+04	6.27
2	11.05	11.42	-99.99	-99.99	-99.99	-99.99	11.24	7.009E+04	8.386E+03	8.36
3	11.22	11.37	-99.99	-99.99	-99.99	-99.99	11.30	6.963E+04	8.399E+03	8.29
4	10.92	10.49	-99.99	-99.99	-99.99	-99.99	10.70	6.918E+04	9.137E+03	7.57
5	9.99	13.32	-99.99	-99.99	-99.99	-99.99	11.65	6.921E+04	8.246E+03	8.39

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.11	5.72	1.71	2.21	2.21	4.85	2.21			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.01	9.09	-99.99	-99.99	-99.99	-99.99	9.05	7.015E+04	1.116E+04	6.29
2	11.07	11.43	-99.99	-99.99	-99.99	-99.99	11.25	7.010E+04	8.389E+03	8.36
3	11.21	11.40	-99.99	-99.99	-99.99	-99.99	11.31	6.964E+04	8.401E+03	8.29
4	10.95	10.50	-99.99	-99.99	-99.99	-99.99	10.72	6.921E+04	9.133E+03	7.58
5	10.00	13.35	-99.99	-99.99	-99.99	-99.99	11.67	6.922E+04	8.241E+03	8.40

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.73	6.30	1.69	2.16	2.15	5.24	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.79	7.60	-99.99	-99.99	-99.99	-99.99	7.49	4.788E+04	9.696E+03	4.94
2	9.09	9.31	-99.99	-99.99	-99.99	-99.99	9.20	4.788E+04	7.347E+03	6.52
3	9.28	9.20	-99.99	-99.99	-99.99	-99.99	9.24	4.759E+04	7.404E+03	6.43
4	9.18	8.89	-99.99	-99.99	-99.99	-99.99	9.03	4.724E+04	7.755E+03	6.09
5	8.90	11.20	-99.99	-99.99	-99.99	-99.99	10.05	4.723E+04	6.759E+03	6.99

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.80	6.30	1.68	2.16	2.16	5.26	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.43	7.60	-99.99	-99.99	-99.99	-99.99	7.52	4.763E+04	9.597E+03	4.96
2	9.07	9.29	-99.99	-99.99	-99.99	-99.99	9.18	4.763E+04	7.335E+03	6.49
3	9.26	9.16	-99.99	-99.99	-99.99	-99.99	9.21	4.736E+04	7.402E+03	6.40
4	9.16	8.86	-99.99	-99.99	-99.99	-99.99	9.01	4.705E+04	7.744E+03	6.08
5	8.87	11.18	-99.99	-99.99	-99.99	-99.99	10.02	4.703E+04	6.760E+03	6.96

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.62	7.38	1.73	2.13	2.11	5.91	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	6.10	6.13-99.99-99.99-99.99-99.99	6.12	3.193E+04	8.609E+03	3.71
2	7.23	7.40-99.99-99.99-99.99-99.99	7.31	3.194E+04	6.687E+03	4.78
3	7.62	7.51-99.99-99.99-99.99-99.99	7.57	3.178E+04	6.481E+03	4.90
4	7.76	7.54-99.99-99.99-99.99-99.99	7.65	3.155E+04	6.494E+03	4.86
5	7.80	9.34-99.99-99.99-99.99-99.99	8.57	3.153E+04	5.578E+03	5.65

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.69	7.46	1.72	2.13	2.11	5.95	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	6.13	6.13-99.99-99.99-99.99-99.99	6.13	3.191E+04	8.566E+03	3.73
2	7.24	7.40-99.99-99.99-99.99-99.99	7.32	3.192E+04	6.664E+03	4.79
3	7.62	7.50-99.99-99.99-99.99-99.99	7.56	3.176E+04	6.484E+03	4.90
4	7.74	7.53-99.99-99.99-99.99-99.99	7.64	3.152E+04	6.497E+03	4.85
5	7.78	9.30-99.99-99.99-99.99-99.99	8.54	3.150E+04	5.602E+03	5.62

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.99	6.91	1.70	2.11	2.10	5.87	2.11

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.99	4.97-99.99-99.99-99.99-99.99	4.98	2.059E+04	7.705E+03	2.67
2	5.67	5.95-99.99-99.99-99.99-99.99	5.91	2.062E+04	5.936E+03	3.47
3	6.29	6.18-99.99-99.99-99.99-99.99	6.23	2.054E+04	5.603E+03	3.67
4	6.61	6.49-99.99-99.99-99.99-99.99	6.55	2.036E+04	5.281E+03	3.85
5	6.92	7.00-99.99-99.99-99.99-99.99	7.36	2.034E+04	4.481E+03	4.54

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.99	6.88	1.71	2.11	2.10	5.86	2.10

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.99	5.00-99.99-99.99-99.99-99.99	4.99	2.058E+04	7.665E+03	2.68
2	5.87	5.96-99.99-99.99-99.99-99.99	5.92	2.060E+04	5.919E+03	3.48
3	6.29	6.18-99.99-99.99-99.99-99.99	6.23	2.052E+04	5.596E+03	3.67
4	6.61	6.50-99.99-99.99-99.99-99.99	6.55	2.034E+04	5.269E+03	3.86
5	6.92	7.01-99.99-99.99-99.99-99.99	7.36	2.032E+04	4.472E+03	4.54

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.92	6.41	1.72	2.15	2.17	5.68	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.33	4.27-99.99-99.99-99.99-99.99	4.30	1.318E+04	6.614E+03	1.99
2	4.98	5.00-99.99-99.99-99.99-99.99	4.99	1.321E+04	5.180E+03	2.55
3	5.52	5.38-99.99-99.99-99.99-99.99	5.45	1.317E+04	4.568E+03	2.88
4	5.87	5.85-99.99-99.99-99.99-99.99	5.86	1.305E+04	4.122E+03	3.17
5	6.06	6.62-99.99-99.99-99.99-99.99	6.34	1.304E+04	3.709E+03	3.52

Data Set Number = 12

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.93	6.40	1.73	2.16	2.19	5.69	2.17			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.34	4.29	99.99	99.99	99.99	99.99	4.32	1.315E+04	6.590E+03	1.99
2	4.99	5.00	99.99	99.99	99.99	99.99	5.00	1.318E+04	5.183E+03	2.54
3	5.54	5.38	99.99	99.99	99.99	99.99	5.46	1.314E+04	4.564E+03	2.88
4	5.87	5.85	99.99	99.99	99.99	99.99	5.86	1.301E+04	4.124E+03	3.16
5	6.07	6.64	99.99	99.99	99.99	99.99	6.35	1.300E+04	3.697E+03	3.52

Data Set Number = 13

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.95	6.44	1.66	2.13	2.16	5.68	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.88	3.85	99.99	99.99	99.99	99.99	3.86	8.705E+03	5.441E+03	1.60
2	4.41	4.39	99.99	99.99	99.99	99.99	4.40	8.738E+03	4.350E+03	2.01
3	4.88	4.76	99.99	99.99	99.99	99.99	4.82	8.724E+03	3.794E+03	2.30
4	5.15	5.15	99.99	99.99	99.99	99.99	5.15	8.641E+03	3.457E+03	2.50
5	5.32	5.70	99.99	99.99	99.99	99.99	5.51	8.635E+03	3.155E+03	2.74

Data Set Number = 14

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.96	6.45	1.66	2.13	2.16	5.69	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.84	3.83	99.99	99.99	99.99	99.99	3.83	8.657E+03	5.509E+03	1.57
2	4.40	4.37	99.99	99.99	99.99	99.99	4.38	8.695E+03	4.369E+03	1.99
3	4.87	4.76	99.99	99.99	99.99	99.99	4.81	8.677E+03	3.786E+03	2.29
4	5.14	5.11	99.99	99.99	99.99	99.99	5.13	8.586E+03	3.463E+03	2.48
5	5.29	5.66	99.99	99.99	99.99	99.99	5.48	8.583E+03	3.181E+03	2.70

Data Set Number = 15

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	9.09	6.57	1.64	2.16	2.18	5.77	2.17			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.51	3.53	99.99	99.99	99.99	99.99	3.52	5.585E+03	4.445E+03	1.26
2	3.99	3.97	99.99	99.99	99.99	99.99	3.98	5.618E+03	3.536E+03	1.59
3	4.35	4.27	99.99	99.99	99.99	99.99	4.31	5.614E+03	3.143E+03	1.79
4	4.59	4.55	99.99	99.99	99.99	99.99	4.56	5.553E+03	2.900E+03	1.92
5	4.70	4.94	99.99	99.99	99.99	99.99	4.82	5.549E+03	2.719E+03	2.04

Data Set Number = 16

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	9.15	6.59	1.65	2.16	2.18	5.80	2.17			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.52	3.53	99.99	99.99	99.99	99.99	3.53	5.599E+03	4.452E+03	1.26
2	4.00	3.98	99.99	99.99	99.99	99.99	3.99	5.629E+03	3.540E+03	1.59
3	4.35	4.27	99.99	99.99	99.99	99.99	4.31	5.628E+03	3.158E+03	1.78
4	4.59	4.55	99.99	99.99	99.99	99.99	4.57	5.568E+03	2.910E+03	1.91
5	4.69	4.94	99.99	99.99	99.99	99.99	4.81	5.564E+03	2.745E+03	2.03

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.48	6.90	1.63	2.20	2.21	6.00	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.23	3.23-99.99-99.99-99.99-99.99	3.23	3.146E+03	3.343E+03	.94
2	3.56	3.55-99.99-99.99-99.99-99.99	3.55	3.172E+03	2.798E+03	1.13
3	3.84	3.75-99.99-99.99-99.99-99.99	3.80	3.180E+03	2.545E+03	1.25
4	4.03	3.98-99.99-99.99-99.99-99.99	4.01	3.141E+03	2.357E+03	1.33
5	4.20	4.36-99.99-99.99-99.99-99.99	4.28	3.137E+03	2.121E+03	1.48

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.54	6.95	1.63	2.20	2.20	6.04	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.20	3.21-99.99-99.99-99.99-99.99	3.21	3.148E+03	3.384E+03	.93
2	3.56	3.56-99.99-99.99-99.99-99.99	3.56	3.176E+03	2.753E+03	1.15
3	3.82	3.75-99.99-99.99-99.99-99.99	3.78	3.178E+03	2.539E+03	1.25
4	4.02	3.98-99.99-99.99-99.99-99.99	4.00	3.140E+03	2.339E+03	1.34
5	4.20	4.37-99.99-99.99-99.99-99.99	4.28	3.138E+03	2.105E+03	1.49

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.90	7.38	1.65	2.18	2.20	6.31	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.03	3.01-99.99-99.99-99.99-99.99	3.02	1.499E+03	1.959E+03	.77
2	3.34	3.29-99.99-99.99-99.99-99.99	3.32	1.520E+03	1.639E+03	.93
3	3.65	3.52-99.99-99.99-99.99-99.99	3.59	1.525E+03	1.427E+03	1.07
4	3.92	3.85-99.99-99.99-99.99-99.99	3.88	1.505E+03	1.215E+03	1.24
5	3.89	3.97-99.99-99.99-99.99-99.99	3.93	1.504E+03	1.301E+03	1.16

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	9.94	7.53	1.64	2.18	2.23	6.37	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.06	3.01-99.99-99.99-99.99-99.99	3.04	1.495E+03	1.958E+03	.76
2	3.35	3.28-99.99-99.99-99.99-99.99	3.31	1.513E+03	1.662E+03	.91
3	3.62	3.50-99.99-99.99-99.99-99.99	3.56	1.520E+03	1.477E+03	1.03
4	3.89	3.81-99.99-99.99-99.99-99.99	3.85	1.502E+03	1.264E+03	1.19
5	3.88	3.96-99.99-99.99-99.99-99.99	3.92	1.499E+03	1.325E+03	1.13

NOTE: 20 X-Y pairs were stored in plot data file POFN091

Disk number = 17

File name: OFN092

This data set taken on : 05:02:18:56:18

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	14.64	14.08	1.68	2.11	2.09	10.13	2.10

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	9.42	9.47-99.99-99.99-99.99-99.99	9.45	9.639E+04	1.460E+04	6.60

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.63	14.09	1.67	2.10	2.09	10.13	2.09

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.39	9.46	99.99	99.99	99.99	99.99	9.43	9.631E+04	1.461E+04	6.59

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.60	13.92	1.87	2.26	2.25	10.13	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.76	8.89	99.99	99.99	99.99	99.99	8.83	7.700E+04	1.291E+04	5.96

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.62	13.91	1.86	2.25	2.24	10.13	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.78	8.91	99.99	99.99	99.99	99.99	8.85	7.722E+04	1.289E+04	5.99

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.57	13.76	1.91	2.20	2.20	10.05	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.87	8.12	99.99	99.99	99.99	99.99	7.99	5.544E+04	1.038E+04	5.34

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.59	13.75	1.81	2.20	2.19	10.05	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.87	8.12	99.99	99.99	99.99	99.99	7.99	5.545E+04	1.038E+04	5.34

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.78	13.51	1.74	2.15	2.13	10.01	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.04	7.27	99.99	99.99	99.99	99.99	7.16	3.687E+04	7.852E+03	4.70

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.80	13.49	1.75	2.15	2.14	10.01	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.03	7.26	99.99	99.99	99.99	99.99	7.15	3.686E+04	7.869E+03	4.68

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.04	13.81	1.67	2.12	2.10	10.17	2.11

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.34	6.45	99.99	99.99	99.99	99.99	6.40	2.365E+04	5.823E+03	4.06

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.06	13.88	1.68	2.11	2.10	10.21	2.11

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.32	6.47	99.99	99.99	99.99	99.99	6.39	2.369E+04	5.833E+03	4.06

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.22	14.43	1.74	2.18	2.18	10.46	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.80	5.90	99.99	99.99	99.99	99.99	5.85	1.426E+04	4.062E+03	3.51

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.22	14.46	1.73	2.19	2.18	10.47	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.80	5.90	99.99	99.99	99.99	99.99	5.85	1.428E+04	4.072E+03	3.51

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.25	14.57	1.76	2.24	2.23	10.53	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.50	5.57	99.99	99.99	99.99	99.99	5.53	9.577E+03	3.018E+03	3.17

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.25	14.58	1.76	2.25	2.23	10.53	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.47	5.58	99.99	99.99	99.99	99.99	5.53	9.583E+03	3.030E+03	3.16

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.23	14.61	1.67	2.22	2.20	10.50	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.10	5.17	99.99	99.99	99.99	99.99	5.13	6.453E+03	2.289E+03	2.82

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.23	14.61	1.67	2.21	2.20	10.50	2.20			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.09	5.16	-99.99	-99.99	-99.99	-99.99	5.12	6.454E+03	2.291E+03	2.82

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.19	14.60	1.61	2.16	2.14	10.46	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.68	4.69	-99.99	-99.99	-99.99	-99.99	4.68	3.637E+03	1.485E+03	2.45

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.19	14.59	1.66	2.17	2.14	10.48	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.68	4.71	-99.99	-99.99	-99.99	-99.99	4.69	3.633E+03	1.477E+03	2.46

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.17	14.57	1.79	2.20	2.16	10.51	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.33	4.34	-99.99	-99.99	-99.99	-99.99	4.33	1.727E+03	8.302E+02	2.08

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	15.16	14.58	1.97	2.21	2.16	10.57	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.36	4.36	-99.99	-99.99	-99.99	-99.99	4.36	1.725E+03	8.214E+02	2.10

NOTE 20 X-Y pairs were stored in plot data file PDFND92

Dist number = 17

File name: DFND93

This data set taken on : 05-02-13:20:31

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	11.90	9.79	1.70	2.14	2.14	7.80	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.42	9.48	-99.99	-99.99	-99.99	-99.99	9.45	9.767E+04	1.489E+04	6.56
2	12.18	12.79	-99.99	-99.99	-99.99	-99.99	12.48	9.783E+04	1.034E+04	9.46

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.87	9.74	1.71	2.14	2.14	7.78	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.42	9.40-99.99-99.99-99.99-99.99	9.41	9.819E+04	1.508E+04	6.51				
2	12.18	12.83-99.99-99.99-99.99-99.99	12.50	9.834E+04	1.038E+04	9.47				

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.35	9.52	1.74	2.18	2.18	7.54	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.62	8.64-99.99-99.99-99.99-99.99	8.63	7.884E+04	1.351E+04	5.84				
2	11.02	11.50-99.99-99.99-99.99-99.99	11.26	7.898E+04	9.478E+03	8.33				

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.31	9.50	1.74	2.17	2.18	7.52	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.59	8.65-99.99-99.99-99.99-99.99	8.62	7.881E+04	1.354E+04	5.82				
2	11.05	11.50-99.99-99.99-99.99-99.99	11.28	7.891E+04	9.450E+03	8.35				

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.10	9.51	1.79	2.21	2.22	7.47	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.51	7.70-99.99-99.99-99.99-99.99	7.60	5.516E+04	1.116E+04	4.94				
2	9.51	9.87-99.99-99.99-99.99-99.99	9.69	5.530E+04	8.017E+03	6.90				

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.08	9.50	1.80	2.22	2.23	7.46	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.50	7.71-99.99-99.99-99.99-99.99	7.61	5.519E+04	1.119E+04	4.93				
2	9.53	9.85-99.99-99.99-99.99-99.99	9.69	5.532E+04	8.036E+03	6.88				

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.98	9.54	1.70	2.13	2.14	7.40	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.57	6.84-99.99-99.99-99.99-99.99	6.70	3.803E+04	8.965E+03	4.24				
2	8.26	8.47-99.99-99.99-99.99-99.99	8.37	3.815E+04	6.607E+03	5.77				

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.97	9.52	1.70	2.14	2.14	7.40	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.61	6.82	-99.99	-99.99	-99.99	-99.99	6.71	3.791E+04	8.921E+03	4.25
2	8.27	8.47	-99.99	-99.99	-99.99	-99.99	8.37	3.804E+04	6.587E+03	5.77

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.05	9.60	1.74	2.18	2.18	7.46	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.96	6.13	-99.99	-99.99	-99.99	-99.99	6.04	2.513E+04	6.922E+03	3.63
2	7.37	7.45	-99.99	-99.99	-99.99	-99.99	7.41	2.524E+04	5.189E+03	4.66

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.09	9.60	1.74	2.18	2.18	7.47	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.93	6.14	-99.99	-99.99	-99.99	-99.99	6.03	2.513E+04	6.944E+03	3.62
2	7.38	7.46	-99.99	-99.99	-99.99	-99.99	7.42	2.524E+04	5.178E+03	4.67

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.55	9.57	1.72	2.17	2.17	7.61	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.16	5.29	-99.99	-99.99	-99.99	-99.99	5.22	1.486E+04	5.146E+03	2.89
2	6.51	6.49	-99.99	-99.99	-99.99	-99.99	6.50	1.496E+04	3.708E+03	4.04

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.60	9.60	1.72	2.18	2.18	7.64	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.17	5.30	-99.99	-99.99	-99.99	-99.99	5.23	1.480E+04	5.119E+03	2.89
2	6.52	6.48	-99.99	-99.99	-99.99	-99.99	6.50	1.491E+04	3.700E+03	4.03

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.92	9.94	1.68	2.18	2.18	7.85	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.58	4.71	-99.99	-99.99	-99.99	-99.99	4.64	9.996E+03	4.279E+03	2.34
2	6.01	5.92	-99.99	-99.99	-99.99	-99.99	5.95	1.009E+04	2.859E+03	3.53

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.98	10.06	1.68	2.18	2.18	7.91	2.18

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.54	4.71	-99.99	-99.99	-99.99	-99.99	4.63	1.002E+04	4.319E+03	2.32
2	6.01	5.93	-99.99	-99.99	-99.99	-99.99	5.97	1.011E+04	2.860E+03	3.54

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.18	10.89	1.67	2.17	2.17	8.25	2.17

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.20	4.31	-99.99	-99.99	-99.99	-99.99	4.26	7.354E+03	3.723E+03	1.98
2	5.68	5.58	-99.99	-99.99	-99.99	-99.99	5.63	7.431E+03	2.310E+03	3.22

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.18	10.95	1.67	2.18	2.17	8.26	2.17

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.19	4.33	-99.99	-99.99	-99.99	-99.99	4.26	7.336E+03	3.713E+03	1.98
2	5.67	5.58	-99.99	-99.99	-99.99	-99.99	5.63	7.419E+03	2.309E+03	3.21

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.28	11.30	1.68	2.21	2.21	8.42	2.21

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.77	3.87	-99.99	-99.99	-99.99	-99.99	3.82	4.335E+03	2.854E+03	1.52
2	5.30	5.18	-99.99	-99.99	-99.99	-99.99	5.24	4.398E+03	1.565E+03	2.81

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.29	11.33	1.68	2.22	2.21	8.43	2.22

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.78	3.85	-99.99	-99.99	-99.99	-99.99	3.81	4.336E+03	2.873E+03	1.51
2	5.31	5.19	-99.99	-99.99	-99.99	-99.99	5.25	4.402E+03	1.563E+03	2.82

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.33	11.46	1.59	2.21	2.18	8.46	2.19

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.37	3.35	-99.99	-99.99	-99.99	-99.99	3.36	2.222E+03	2.035E+03	1.09
2	4.77	4.65	-99.99	-99.99	-99.99	-99.99	4.71	2.268E+03	9.790E+02	2.32

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.33	11.48	1.58	2.20	2.18	8.47	2.19

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.34	3.36	-99.99	-99.99	-99.99	-99.99	3.35	2.226E+03	2.046E+03	1.89
2	4.79	4.66	-99.99	-99.99	-99.99	-99.99	4.73	2.273E+03	9.721E+02	2.34

NOTE: 20 X-Y pairs were stored in plot data file PDFND93

Disk number = 17  
File name: DFND94  
This data set taken on - 05-02-12:25:03

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.52	9.57	1.72	2.19	2.20	7.94	2.19

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.25	9.34	-99.99	-99.99	-99.99	-99.99	9.29	9.234E+04	1.446E+04	6.39
2	11.58	12.13	-99.99	-99.99	-99.99	-99.99	11.86	9.246E+04	1.048E+04	8.82
3	12.39	12.77	-99.99	-99.99	-99.99	-99.99	12.58	9.157E+04	9.724E+03	9.42

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.48	9.44	1.72	2.20	2.20	7.88	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.26	9.29	-99.99	-99.99	-99.99	-99.99	9.27	9.201E+04	1.447E+04	6.36
2	11.55	12.08	-99.99	-99.99	-99.99	-99.99	11.82	9.216E+04	1.050E+04	8.78
3	12.39	12.72	-99.99	-99.99	-99.99	-99.99	12.55	9.126E+04	9.718E+03	9.39

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.15	9.42	1.73	2.19	2.20	7.77	2.19

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.27	8.31	-99.99	-99.99	-99.99	-99.99	8.29	7.480E+04	1.358E+04	5.51
2	10.37	10.78	-99.99	-99.99	-99.99	-99.99	10.57	7.494E+04	9.784E+03	7.66
3	11.25	11.47	-99.99	-99.99	-99.99	-99.99	11.36	7.421E+04	8.913E+03	8.33

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.15	9.44	1.73	2.21	2.21	7.77	2.21

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.24	8.34	-99.99	-99.99	-99.99	-99.99	8.29	7.488E+04	1.363E+04	5.49
2	10.33	10.77	-99.99	-99.99	-99.99	-99.99	10.55	7.498E+04	9.833E+03	7.62
3	11.27	11.46	-99.99	-99.99	-99.99	-99.99	11.36	7.425E+04	8.930E+03	8.31

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.63	9.34	1.71	2.18	2.18	7.56	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.06	7.18	-99.99	-99.99	-99.99	-99.99	7.12	5.264E+04	1.166E+04	4.51
2	8.04	9.14	-99.99	-99.99	-99.99	-99.99	8.99	5.275E+04	8.438E+03	6.25
3	9.65	9.82	-99.99	-99.99	-99.99	-99.99	9.83	5.219E+04	7.491E+03	6.97

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.60	9.32	1.71	2.17	2.18	7.54	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.04	7.17	-99.99	-99.99	-99.99	-99.99	7.10	5.269E+04	1.172E+04	4.50
2	8.05	9.15	-99.99	-99.99	-99.99	-99.99	9.00	5.281E+04	8.431E+03	6.26
3	9.86	9.84	-99.99	-99.99	-99.99	-99.99	9.85	5.230E+04	7.486E+03	6.99

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.16	9.45	1.68	2.13	2.14	7.43	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.23	6.35	-99.99	-99.99	-99.99	-99.99	6.29	3.579E+04	9.303E+03	3.85
2	7.65	7.88	-99.99	-99.99	-99.99	-99.99	7.76	3.590E+04	6.916E+03	5.19
3	8.70	8.56	-99.99	-99.99	-99.99	-99.99	8.63	3.555E+04	5.993E+03	5.93

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.13	9.47	1.68	2.14	2.15	7.43	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.26	6.40	-99.99	-99.99	-99.99	-99.99	6.33	3.574E+04	9.216E+03	3.88
2	7.66	7.88	-99.99	-99.99	-99.99	-99.99	7.77	3.585E+04	6.911E+03	5.19
3	8.72	8.58	-99.99	-99.99	-99.99	-99.99	8.65	3.548E+04	5.976E+03	5.94

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.09	9.60	1.75	2.20	2.21	7.48	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.73	5.81	-99.99	-99.99	-99.99	-99.99	5.77	2.312E+04	6.928E+03	3.34
2	6.86	6.99	-99.99	-99.99	-99.99	-99.99	6.92	2.323E+04	5.322E+03	4.36
3	7.72	7.54	-99.99	-99.99	-99.99	-99.99	7.63	2.300E+04	4.654E+03	4.94

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.10	9.60	1.75	2.22	2.23	7.49	2.22

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.71	5.81	-99.99	-99.99	-99.99	-99.99	5.76	2.303E+04	6.934E+03	3.32
2	6.84	7.00	-99.99	-99.99	-99.99	-99.99	6.92	2.315E+04	5.327E+03	4.34
3	7.70	7.57	-99.99	-99.99	-99.99	-99.99	7.63	2.292E+04	4.648E+03	4.93

Data Set Number = 11

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.19	9.68	1.72	2.21	2.22	7.53	2.22

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.18	5.25	-99.99	-99.99	-99.99	-99.99	5.21	1.452E+04	5.123E+03	2.83
2	6.07	6.10	-99.99	-99.99	-99.99	-99.99	6.09	1.463E+04	4.089E+03	3.58
3	6.85	6.74	-99.99	-99.99	-99.99	-99.99	6.79	1.448E+04	3.483E+03	4.16

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.21	9.67	1.73	2.21	2.22	7.54	2.22

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.19	5.26	-99.99	-99.99	-99.99	-99.99	5.22	1.459E+04	5.130E+03	2.84
2	6.08	6.11	-99.99	-99.99	-99.99	-99.99	6.10	1.468E+04	4.096E+03	3.59
3	6.88	6.79	-99.99	-99.99	-99.99	-99.99	6.83	1.454E+04	3.465E+03	4.20

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.68	9.67	1.66	2.18	2.20	7.67	2.19

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.65	4.69	-99.99	-99.99	-99.99	-99.99	4.67	9.594E+03	4.078E+03	2.35
2	5.36	5.31	-99.99	-99.99	-99.99	-99.99	5.34	9.686E+03	3.350E+03	2.89
3	6.27	6.16	-99.99	-99.99	-99.99	-99.99	6.21	9.586E+03	2.634E+03	3.64

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
11.73	9.69	1.67	2.18	2.20	7.70	2.19

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.67	4.71	-99.99	-99.99	-99.99	-99.99	4.69	9.587E+03	4.036E+03	2.38
2	5.34	5.31	-99.99	-99.99	-99.99	-99.99	5.32	9.676E+03	3.361E+03	2.88
3	6.25	6.15	-99.99	-99.99	-99.99	-99.99	6.20	9.578E+03	2.639E+03	3.63

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
12.19	10.48	1.62	2.17	2.21	8.10	2.19

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.29	4.29	-99.99	-99.99	-99.99	-99.99	4.29	6.404E+03	3.204E+03	2.00
2	4.73	4.69	-99.99	-99.99	-99.99	-99.99	4.71	6.483E+03	2.835E+03	2.29
3	5.78	5.70	-99.99	-99.99	-99.99	-99.99	5.74	6.413E+03	2.011E+03	3.19

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
12.22	10.60	1.63	2.18	2.21	8.15	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.29	4.32	-99.99	-99.99	-99.99	-99.99	4.31	6.378E+03	3.178E+03	2.01
2	4.74	4.70	-99.99	-99.99	-99.99	-99.99	4.72	6.462E+03	2.815E+03	2.30
3	5.79	5.69	-99.99	-99.99	-99.99	-99.99	5.74	6.393E+03	2.006E+03	3.19

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.37	11.21	1.52	2.13	2.16	8.37	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.78	3.76	-99.99	-99.99	-99.99	-99.99	3.77	3.842E+03	2.481E+03	1.55
2	4.07	3.99	-99.99	-99.99	-99.99	-99.99	4.03	3.903E+03	2.331E+03	1.67
3	5.20	5.16	-99.99	-99.99	-99.99	-99.99	5.18	3.862E+03	1.433E+03	2.69

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.38	11.24	1.51	2.13	2.16	8.38	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.79	3.76	-99.99	-99.99	-99.99	-99.99	3.78	3.833E+03	2.470E+03	1.55
2	4.07	3.99	-99.99	-99.99	-99.99	-99.99	4.03	3.896E+03	2.326E+03	1.68
3	5.20	5.16	-99.99	-99.99	-99.99	-99.99	5.18	3.851E+03	1.430E+03	2.69

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.45	11.51	1.49	2.15	2.15	8.48	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.33	3.29	-99.99	-99.99	-99.99	-99.99	3.31	1.909E+03	1.752E+03	1.09
2	3.73	3.64	-99.99	-99.99	-99.99	-99.99	3.69	1.953E+03	1.462E+03	1.34
3	4.69	4.68	-99.99	-99.99	-99.99	-99.99	4.68	1.929E+03	8.745E+02	2.21

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.46	11.55	1.50	2.16	2.16	8.50	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.35	3.32	-99.99	-99.99	-99.99	-99.99	3.33	1.903E+03	1.725E+03	1.10
2	3.74	3.66	-99.99	-99.99	-99.99	-99.99	3.70	1.948E+03	1.452E+03	1.34
3	4.71	4.69	-99.99	-99.99	-99.99	-99.99	4.70	1.923E+03	8.693E+02	2.21

NOTE: 20 X-Y pairs were stored in plot data file PDFND94

Disk number = 17

File name DFND95

This data set taken on 05 OCT 11:20:47

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.17	10.51	1.64	2.13	2.13	8.44	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.11	9.27	-99.99	-99.99	-99.99	-99.99	9.19	9.036E+04	1.420E+04	6.36
2	11.35	11.79	-99.99	-99.99	-99.99	-99.99	11.57	9.051E+04	1.051E+04	8.62
3	11.96	12.48	-99.99	-99.99	-99.99	-99.99	12.22	8.967E+04	9.811E+03	9.14
4	11.35	11.02	-99.99	-99.99	-99.99	-99.99	11.19	8.914E+04	1.117E+04	7.98

Data Set Number = 2

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
13.12	10.45	1.64	2.13	2.12	8.40	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.11	9.20	-99.99	-99.99	-99.99	-99.99	9.15	8.986E+04	1.420E+04	6.33
2	11.36	11.81	-99.99	-99.99	-99.99	-99.99	11.58	9.000E+04	1.043E+04	8.63
3	11.95	12.46	-99.99	-99.99	-99.99	-99.99	12.20	8.915E+04	9.769E+03	9.13
4	11.33	11.02	-99.99	-99.99	-99.99	-99.99	11.18	8.862E+04	1.111E+04	7.98

Data Set Number = 3

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
12.85	10.33	1.66	2.15	2.14	8.28	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.05	8.19	-99.99	-99.99	-99.99	-99.99	8.12	7.257E+04	1.344E+04	5.40
2	10.01	10.34	-99.99	-99.99	-99.99	-99.99	10.18	7.269E+04	9.916E+03	7.23
3	10.63	11.06	-99.99	-99.99	-99.99	-99.99	10.84	7.202E+04	9.152E+03	7.87
4	10.40	10.23	-99.99	-99.99	-99.99	-99.99	10.31	7.160E+04	9.922E+03	7.22

Data Set Number = 4

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
12.83	10.32	1.66	2.15	2.15	8.27	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.05	8.21	-99.99	-99.99	-99.99	-99.99	8.13	7.250E+04	1.341E+04	5.41
2	10.01	10.37	-99.99	-99.99	-99.99	-99.99	10.19	7.265E+04	9.900E+03	7.24
3	10.60	11.04	-99.99	-99.99	-99.99	-99.99	10.82	7.196E+04	9.178E+03	7.84
4	10.40	10.22	-99.99	-99.99	-99.99	-99.99	10.31	7.153E+04	9.925E+03	7.21

Data Set Number = 5

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
12.51	10.40	1.71	2.19	2.20	8.21	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.82	6.84	-99.99	-99.99	-99.99	-99.99	6.83	5.200E+04	1.237E+04	4.20
2	8.50	8.68	-99.99	-99.99	-99.99	-99.99	8.59	5.210E+04	8.926E+03	5.84
3	9.17	9.52	-99.99	-99.99	-99.99	-99.99	9.35	5.161E+04	7.980E+03	6.47
4	9.25	9.24	-99.99	-99.99	-99.99	-99.99	9.24	5.129E+04	8.219E+03	6.24

Data Set Number = 6

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
12.53	10.42	1.71	2.18	2.18	8.22	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.79	6.81	-99.99	-99.99	-99.99	-99.99	6.80	5.198E+04	1.241E+04	4.19
2	8.51	8.69	-99.99	-99.99	-99.99	-99.99	8.60	5.208E+04	8.887E+03	5.86
3	9.16	9.52	-99.99	-99.99	-99.99	-99.99	9.34	5.160E+04	7.972E+03	6.47
4	9.26	9.23	-99.99	-99.99	-99.99	-99.99	9.24	5.128E+04	8.205E+03	6.25

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.85	10.35	1.62	2.10	2.10	7.94	2.10

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.93	5.89-99.99-99.99-99.99-99.99	5.89-99.99-99.99-99.99-99.99	5.89-99.99-99.99-99.99-99.99	5.89-99.99-99.99-99.99-99.99	5.89-99.99-99.99-99.99-99.99	5.89	3.322E+04	9.454E+03	3.51
2	7.09	7.20-99.99-99.99-99.99-99.99	7.15	3.333E+04	7.211E+03	4.62				
3	8.01	7.98-99.99-99.99-99.99-99.99	7.99	3.302E+04	6.180E+03	5.34				
4	7.97	8.15-99.99-99.99-99.99-99.99	8.06	3.280E+04	6.213E+03	5.28				

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.84	10.36	1.64	2.11	2.12	7.94	2.12

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.89	5.88-99.99-99.99-99.99-99.99	5.88	3.311E+04	9.529E+03	3.47				
2	7.12	7.22-99.99-99.99-99.99-99.99	7.17	3.323E+04	7.173E+03	4.63				
3	8.04	7.99-99.99-99.99-99.99-99.99	8.02	3.292E+04	6.152E+03	5.35				
4	7.94	8.14-99.99-99.99-99.99-99.99	8.04	3.271E+04	6.230E+03	5.25				

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.69	10.25	1.67	2.14	2.15	7.87	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.39	5.41-99.99-99.99-99.99-99.99	5.40	2.165E+04	7.120E+03	3.04				
2	6.40	6.44-99.99-99.99-99.99-99.99	6.42	2.174E+04	5.534E+03	3.93				
3	7.10	6.91-99.99-99.99-99.99-99.99	7.01	2.152E+04	4.899E+03	4.39				
4	7.22	7.44-99.99-99.99-99.99-99.99	7.33	2.137E+04	4.658E+03	4.59				

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.68	10.25	1.66	2.15	2.15	7.86	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.41	5.41-99.99-99.99-99.99-99.99	5.41	2.166E+04	7.100E+03	3.05				
2	6.39	6.43-99.99-99.99-99.99-99.99	6.41	2.178E+04	5.552E+03	3.92				
3	7.11	6.92-99.99-99.99-99.99-99.99	7.02	2.155E+04	4.900E+03	4.40				
4	7.22	7.43-99.99-99.99-99.99-99.99	7.32	2.141E+04	4.676E+03	4.58				

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.68	10.27	1.64	2.13	2.16	7.86	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.88	4.89-99.99-99.99-99.99-99.99	4.88	1.310E+04	5.061E+03	2.59				
2	5.71	5.64-99.99-99.99-99.99-99.99	5.68	1.320E+04	4.058E+03	3.25				
3	5.97	5.69-99.99-99.99-99.99-99.99	5.83	1.306E+04	3.980E+03	3.28				
4	6.48	6.82-99.99-99.99-99.99-99.99	6.65	1.297E+04	3.272E+03	3.97				

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	11.69	10.27	1.66	2.15	2.18	7.87	2.17		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.91	4.91-99.99-99.99-99.99-99.99	4.91	1.308E+04	5.041E+03	2.59			
2	5.74	5.67-99.99-99.99-99.99-99.99	5.71	1.318E+04	4.039E+03	3.26			
3	5.99	5.72-99.99-99.99-99.99-99.99	5.85	1.305E+04	3.978E+03	3.28			
4	6.50	6.83-99.99-99.99-99.99-99.99	6.66	1.296E+04	3.271E+03	3.96			

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	12.08	10.27	1.64	2.16	2.19	8.00	2.18		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.48	4.45-99.99-99.99-99.99-99.99	4.47	8.998E+03	4.145E+03	2.17			
2	5.15	5.03-99.99-99.99-99.99-99.99	5.09	9.006E+03	3.416E+03	2.66			
3	5.25	5.01-99.99-99.99-99.99-99.99	5.13	8.992E+03	3.496E+03	2.57			
4	6.00	6.32-99.99-99.99-99.99-99.99	6.16	8.923E+03	2.568E+03	3.48			

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	12.13	10.26	1.64	2.17	2.20	8.01	2.19		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.48	4.46-99.99-99.99-99.99-99.99	4.47	8.979E+03	4.159E+03	2.16			
2	5.13	5.02-99.99-99.99-99.99-99.99	5.08	9.065E+03	3.437E+03	2.64			
3	5.26	5.01-99.99-99.99-99.99-99.99	5.13	8.966E+03	3.492E+03	2.57			
4	6.00	6.33-99.99-99.99-99.99-99.99	6.17	8.897E+03	2.562E+03	3.47			

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	12.54	10.53	1.53	2.13	2.16	8.20	2.14		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.02	3.98-99.99-99.99-99.99-99.99	4.00	5.765E+03	3.281E+03	1.76			
2	4.42	4.32-99.99-99.99-99.99-99.99	4.37	5.838E+03	2.916E+03	2.00			
3	4.55	4.34-99.99-99.99-99.99-99.99	4.45	5.776E+03	2.966E+03	1.95			
4	5.50	5.77-99.99-99.99-99.99-99.99	5.63	5.731E+03	1.908E+03	3.00			

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav		
	12.57	10.54	1.53	2.13	2.15	8.21	2.14		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.00	3.96-99.99-99.99-99.99-99.99	3.99	5.794E+03	3.307E+03	1.75			
2	4.43	4.35-99.99-99.99-99.99-99.99	4.39	5.870E+03	2.913E+03	2.02			
3	4.59	4.35-99.99-99.99-99.99-99.99	4.46	5.807E+03	2.958E+03	1.96			
4	5.49	5.76-99.99-99.99-99.99-99.99	5.62	5.758E+03	1.924E+03	2.99			

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.75	11.29	1.51	2.15	2.15	8.51	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.55	3.56	-99.99	-99.99	-99.99	-99.99	3.56	3.326E+03	2.510E+03	1.32
2	3.05	3.80	-99.99	-99.99	-99.99	-99.99	3.82	3.385E+03	2.313E+03	1.46
3	4.16	3.99	-99.99	-99.99	-99.99	-99.99	4.07	3.349E+03	2.113E+03	1.58
4	5.08	5.28	-99.99	-99.99	-99.99	-99.99	5.18	3.322E+03	1.297E+03	2.56

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.76	11.35	1.51	2.16	2.16	8.54	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.55	3.59	-99.99	-99.99	-99.99	-99.99	3.57	3.339E+03	2.514E+03	1.33
2	3.87	3.81	-99.99	-99.99	-99.99	-99.99	3.84	3.397E+03	2.307E+03	1.47
3	4.16	4.01	-99.99	-99.99	-99.99	-99.99	4.09	3.362E+03	2.110E+03	1.59
4	5.08	5.29	-99.99	-99.99	-99.99	-99.99	5.19	3.334E+03	1.301E+03	2.56

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.89	11.96	1.55	2.22	2.21	8.80	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.25	3.25	-99.99	-99.99	-99.99	-99.99	3.25	1.800E+03	1.861E+03	.97
2	3.51	3.51	-99.99	-99.99	-99.99	-99.99	3.51	1.843E+03	1.678E+03	1.10
3	3.98	3.92	-99.99	-99.99	-99.99	-99.99	3.95	1.820E+03	1.297E+03	1.40
4	4.75	4.92	-99.99	-99.99	-99.99	-99.99	4.84	1.805E+03	8.344E+02	2.16

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	12.89	11.99	1.56	2.22	2.21	8.81	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.28	3.27	-99.99	-99.99	-99.99	-99.99	3.28	1.802E+03	1.817E+03	.99
2	3.57	3.52	-99.99	-99.99	-99.99	-99.99	3.54	1.843E+03	1.634E+03	1.13
3	4.00	3.82	-99.99	-99.99	-99.99	-99.99	3.96	1.818E+03	1.283E+03	1.42
4	4.77	4.94	-99.99	-99.99	-99.99	-99.99	4.86	1.807E+03	8.279E+02	2.18

NOTE: 20 X-Y pairs were stored in plot data file POFND95

Disk number = 17

File name: DFN095

This data set taken on . 05 02:10:16 20

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.06	12.92	1.54	2.10	2.09	9.51	2.09			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.18	9.32	-99.99	-99.99	-99.99	-99.99	9.25	9.369E+04	1.457E+04	6.43
2	11.58	12.05	-99.99	-99.99	-99.99	-99.99	11.82	9.377E+04	1.057E+04	8.87
3	12.04	12.53	-99.99	-99.99	-99.99	-99.99	12.29	9.280E+04	1.007E+04	9.22
4	11.24	10.91	-99.99	-99.99	-99.99	-99.99	11.08	9.235E+04	1.171E+04	7.88
5	10.18	14.44	-99.99	-99.99	-99.99	-99.99	12.31	9.242E+04	1.028E+04	8.99

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.05	12.89	1.54	2.10	2.09	9.49	2.10

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	9.24	9.31-99.99-99.99-99.99-99.99-99.99	9.27	9.381E+04	1.454E+04	6.45
2	11.52	12.06-99.99-99.99-99.99-99.99-99.99	11.79	9.398E+04	1.063E+04	8.84
3	12.04	12.53-99.99-99.99-99.99-99.99-99.99	12.28	9.304E+04	1.010E+04	9.21
4	11.25	10.94-99.99-99.99-99.99-99.99-99.99	11.10	9.255E+04	1.172E+04	7.90
5	10.18	14.47-99.99-99.99-99.99-99.99-99.99	12.32	9.262E+04	1.030E+04	9.00

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.78	11.78	1.76	2.26	2.26	9.11	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	8.46	8.59-99.99-99.99-99.99-99.99-99.99	8.53	7.809E+04	1.382E+04	5.65
2	10.48	10.90-99.99-99.99-99.99-99.99-99.99	10.69	7.824E+04	1.019E+04	7.68
3	10.80	11.32-99.99-99.99-99.99-99.99-99.99	11.06	7.746E+04	9.762E+03	7.93
4	10.53	10.32-99.99-99.99-99.99-99.99-99.99	10.42	7.701E+04	1.074E+04	7.17
5	9.68	13.26-99.99-99.99-99.99-99.99-99.99	11.47	7.709E+04	9.536E+03	8.08

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.75	11.72	1.77	2.27	2.27	9.08	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	8.55	8.62-99.99-99.99-99.99-99.99-99.99	8.58	7.810E+04	1.372E+04	5.69
2	10.52	10.90-99.99-99.99-99.99-99.99-99.99	10.71	7.823E+04	1.017E+04	7.69
3	10.82	11.33-99.99-99.99-99.99-99.99-99.99	11.06	7.743E+04	9.758E+03	7.94
4	10.53	10.30-99.99-99.99-99.99-99.99-99.99	10.41	7.703E+04	1.078E+04	7.15
5	9.69	13.24-99.99-99.99-99.99-99.99-99.99	11.46	7.710E+04	9.557E+03	8.07

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.50	11.36	1.75	2.26	2.25	8.87	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	6.88	7.12-99.99-99.99-99.99-99.99-99.99	7.00	5.467E+04	1.271E+04	4.30
2	8.67	8.89-99.99-99.99-99.99-99.99-99.99	8.73	5.478E+04	9.288E+03	5.90
3	8.87	9.30-99.99-99.99-99.99-99.99-99.99	9.09	5.421E+04	8.839E+03	6.13
4	9.15	8.97-99.99-99.99-99.99-99.99-99.99	9.06	5.392E+04	9.016E+03	5.98
5	8.67	11.17-99.99-99.99-99.99-99.99-99.99	9.92	5.395E+04	8.038E+03	6.71

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.47	11.33	1.76	2.26	2.26	8.85	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	6.89	7.16-99.99-99.99-99.99-99.99-99.99	7.02	5.469E+04	1.267E+04	4.32
2	8.68	8.88-99.99-99.99-99.99-99.99-99.99	8.73	5.481E+04	9.302E+03	5.89
3	8.89	9.32-99.99-99.99-99.99-99.99-99.99	9.10	5.426E+04	8.833E+03	6.14
4	9.12	9.00-99.99-99.99-99.99-99.99-99.99	9.06	5.395E+04	9.028E+03	5.98
5	8.68	11.10-99.99-99.99-99.99-99.99-99.99	9.89	5.398E+04	8.086E+03	6.68

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.38	11.63	1.67	2.17	2.18	8.89	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	5.78	5.91-99.99-99.99-99.99-99.99	5.84	3.662E+04	1.092E+04	3.35
2	7.10	7.30-99.99-99.99-99.99-99.99	7.20	3.672E+04	8.015E+03	4.58
3	7.57	7.70-99.99-99.99-99.99-99.99	7.63	3.634E+04	7.439E+03	4.89
4	7.90	7.84-99.99-99.99-99.99-99.99	7.87	3.613E+04	7.229E+03	5.00
5	7.89	9.48-99.99-99.99-99.99-99.99	8.69	3.614E+04	6.361E+03	5.68

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.39	11.66	1.67	2.18	2.17	8.91	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	5.83	5.93-99.99-99.99-99.99-99.99	5.88	3.664E+04	1.083E+04	3.38
2	7.12	7.32-99.99-99.99-99.99-99.99	7.22	3.675E+04	7.989E+03	4.60
3	7.58	7.70-99.99-99.99-99.99-99.99	7.64	3.638E+04	7.445E+03	4.89
4	7.89	7.83-99.99-99.99-99.99-99.99	7.86	3.617E+04	7.254E+03	4.99
5	7.87	9.48-99.99-99.99-99.99-99.99	8.67	3.615E+04	6.379E+03	5.67

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.21	11.99	1.64	2.13	2.15	8.95	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	5.30	5.32-99.99-99.99-99.99-99.99	5.31	2.338E+04	7.941E+03	2.94
2	6.24	6.26-99.99-99.99-99.99-99.99	6.25	2.350E+04	6.258E+03	3.75
3	6.82	6.61-99.99-99.99-99.99-99.99	6.72	2.325E+04	5.680E+03	4.09
4	6.87	6.91-99.99-99.99-99.99-99.99	6.89	2.311E+04	5.585E+03	4.14
5	7.28	8.19-99.99-99.99-99.99-99.99	7.73	2.310E+04	4.762E+03	4.85

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.19	12.03	1.64	2.13	2.15	8.96	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	5.29	5.30-99.99-99.99-99.99-99.99	5.30	2.334E+04	7.969E+03	2.93
2	6.26	6.28-99.99-99.99-99.99-99.99	6.27	2.346E+04	6.214E+03	3.77
3	6.83	6.68-99.99-99.99-99.99-99.99	6.76	2.321E+04	5.615E+03	4.13
4	6.87	6.92-99.99-99.99-99.99-99.99	6.89	2.308E+04	5.571E+03	4.14
5	7.29	8.23-99.99-99.99-99.99-99.99	7.76	2.306E+04	4.728E+03	4.88

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.98	12.04	1.70	2.19	2.21	8.91	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.95	4.93-99.99-99.99-99.99-99.99	4.94	1.548E+04	6.028E+03	2.57
2	5.83	5.73-99.99-99.99-99.99-99.99	5.78	1.559E+04	4.752E+03	3.28
3	6.15	5.90-99.99-99.99-99.99-99.99	6.03	1.543E+04	4.540E+03	3.40
4	6.21	6.29-99.99-99.99-99.99-99.99	6.25	1.531E+04	4.386E+03	3.49
5	6.88	7.42-99.99-99.99-99.99-99.99	7.15	1.531E+04	3.593E+03	4.26

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.00	12.02	1.70	2.20	2.21	8.91	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)				
1	2	3	4	5	6				
1	4.97	4.92	-99.99	-99.99	-99.99	4.94	1.547E+04	6.009E+03	2.57
2	5.83	5.74	-99.99	-99.99	-99.99	5.79	1.558E+04	4.738E+03	3.29
3	6.17	5.91	-99.99	-99.99	-99.99	6.04	1.542E+04	4.517E+03	3.41
4	6.21	6.31	-99.99	-99.99	-99.99	6.26	1.531E+04	4.372E+03	3.50
5	6.83	7.38	-99.99	-99.99	-99.99	7.10	1.529E+04	3.625E+03	4.22

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.08	11.93	1.63	2.16	2.18	8.88	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)				
1	2	3	4	5	6				
1	4.54	4.55	-99.99	-99.99	-99.99	4.54	1.044E+04	4.658E+03	2.24
2	5.26	5.16	-99.99	-99.99	-99.99	5.21	1.053E+04	3.794E+03	2.78
3	5.44	5.32	-99.99	-99.99	-99.99	5.38	1.043E+04	3.702E+03	2.82
4	5.60	5.64	-99.99	-99.99	-99.99	5.62	1.035E+04	3.532E+03	2.93
5	6.42	6.71	-99.99	-99.99	-99.99	6.57	1.035E+04	2.761E+03	3.75

Data Set Number = 14

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.11	11.92	1.64	2.16	2.19	8.89	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)				
1	2	3	4	5	6				
1	4.55	4.55	-99.99	-99.99	-99.99	4.55	1.049E+04	4.671E+03	2.25
2	5.27	5.17	-99.99	-99.99	-99.99	5.22	1.059E+04	3.807E+03	2.78
3	5.45	5.31	-99.99	-99.99	-99.99	5.38	1.048E+04	3.719E+03	2.82
4	5.59	5.64	-99.99	-99.99	-99.99	5.62	1.038E+04	3.548E+03	2.92
5	6.40	6.71	-99.99	-99.99	-99.99	6.56	1.038E+04	2.776E+03	3.74

Data Set Number = 15

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.46	11.90	1.59	2.16	2.20	8.99	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)				
1	2	3	4	5	6				
1	4.17	4.19	-99.99	-99.99	-99.99	4.18	7.362E+03	3.884E+03	1.90
2	4.76	4.71	-99.99	-99.99	-99.99	4.74	7.445E+03	3.208E+03	2.32
3	4.95	4.87	-99.99	-99.99	-99.99	4.91	7.366E+03	3.110E+03	2.37
4	5.14	5.10	-99.99	-99.99	-99.99	5.12	7.307E+03	2.985E+03	2.45
5	6.00	6.17	-99.99	-99.99	-99.99	6.08	7.307E+03	2.226E+03	3.28

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
13.51	11.93	1.59	2.16	2.19	9.01	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)				
1	2	3	4	5	6				
1	4.17	4.20	-99.99	-99.99	-99.99	4.19	7.351E+03	3.862E+03	1.90
2	4.75	4.72	-99.99	-99.99	-99.99	4.74	7.438E+03	3.200E+03	2.32
3	4.94	4.89	-99.99	-99.99	-99.99	4.91	7.361E+03	3.104E+03	2.37
4	5.14	5.09	-99.99	-99.99	-99.99	5.12	7.303E+03	2.982E+03	2.45
5	6.00	6.15	-99.99	-99.99	-99.99	6.08	7.299E+03	2.227E+03	3.28

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.80	12.54	1.49	2.15	2.15	9.28	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.68	3.68	-99.99	-99.99	-99.99	-99.99	3.68	4.242E+03	2.950E+03	1.44
2	4.05	4.02	-99.99	-99.99	-99.99	-99.99	4.03	4.306E+03	2.585E+03	1.67
3	4.34	4.31	-99.99	-99.99	-99.99	-99.99	4.32	4.262E+03	2.338E+03	1.82
4	4.61	4.48	-99.99	-99.99	-99.99	-99.99	4.54	4.226E+03	2.206E+03	1.92
5	5.35	5.50	-99.99	-99.99	-99.99	-99.99	5.42	4.225E+03	1.584E+03	2.67

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.82	12.61	1.48	2.15	2.14	9.30	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.69	3.69	-99.99	-99.99	-99.99	-99.99	3.69	4.233E+03	2.907E+03	1.46
2	4.06	4.04	-99.99	-99.99	-99.99	-99.99	4.05	4.295E+03	2.547E+03	1.69
3	4.34	4.31	-99.99	-99.99	-99.99	-99.99	4.32	4.253E+03	2.320E+03	1.83
4	4.60	4.47	-99.99	-99.99	-99.99	-99.99	4.53	4.217E+03	2.202E+03	1.92
5	5.35	5.50	-99.99	-99.99	-99.99	-99.99	5.42	4.215E+03	1.576E+03	2.67

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.96	13.11	1.43	2.15	2.11	9.50	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.23	3.20	-99.99	-99.99	-99.99	-99.99	3.22	2.123E+03	2.094E+03	1.01
2	3.51	3.46	-99.99	-99.99	-99.99	-99.99	3.48	2.168E+03	1.881E+03	1.15
3	3.96	3.79	-99.99	-99.99	-99.99	-99.99	3.88	2.142E+03	1.512E+03	1.42
4	4.39	4.29	-99.99	-99.99	-99.99	-99.99	4.34	2.125E+03	1.213E+03	1.75
5	4.70	4.83	-99.99	-99.99	-99.99	-99.99	4.77	2.124E+03	1.036E+03	2.05

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.96	13.13	1.42	2.14	2.11	9.50	2.12

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.22	3.18	-99.99	-99.99	-99.99	-99.99	3.20	2.121E+03	2.113E+03	1.00
2	3.52	3.46	-99.99	-99.99	-99.99	-99.99	3.49	2.168E+03	1.863E+03	1.16
3	3.94	3.78	-99.99	-99.99	-99.99	-99.99	3.86	2.142E+03	1.519E+03	1.41
4	4.38	4.25	-99.99	-99.99	-99.99	-99.99	4.32	2.123E+03	1.226E+03	1.73
5	4.69	4.83	-99.99	-99.99	-99.99	-99.99	4.76	2.123E+03	1.038E+03	2.05

NOTE 20 X-Y pairs were stored in plot data file POFND96

Disk number = 17

File name: DFND97

This data set taken on : 05:01:21:28:10

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.62	5.98	1.56	2.15	2.14	5.06	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	8.96	9.02	-99.99	-99.99	-99.99	8.99	9.116E+04	1.485E+04	6.14
2	11.22	11.64	-99.99	-99.99	-99.99	11.43	9.131E+04	1.082E+04	8.44
3	11.81	12.04	-99.99	-99.99	-99.99	11.92	9.051E+04	1.027E+04	8.81
4	11.00	10.52	-99.99	-99.99	-99.99	10.76	8.995E+04	1.195E+04	7.53
5	9.92	13.95	-99.99	-99.99	-99.99	11.94	8.999E+04	1.050E+04	8.57

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.48	5.90	1.57	2.16	2.16	4.98	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	8.07	8.91	-99.99	-99.99	-99.99	8.89	9.054E+04	1.501E+04	6.03
2	11.19	11.61	-99.99	-99.99	-99.99	11.40	9.068E+04	1.079E+04	8.41
3	11.73	12.04	-99.99	-99.99	-99.99	11.88	8.999E+04	1.026E+04	8.77
4	10.97	10.48	-99.99	-99.99	-99.99	10.72	8.929E+04	1.193E+04	7.48
5	9.90	13.92	-99.99	-99.99	-99.99	11.91	8.933E+04	1.046E+04	8.54

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.11	5.78	1.57	2.15	2.15	4.82	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	8.02	8.25	-99.99	-99.99	-99.99	8.14	7.291E+04	1.349E+04	5.41
2	9.72	10.12	-99.99	-99.99	-99.99	9.92	7.303E+04	1.035E+04	7.06
3	10.11	10.39	-99.99	-99.99	-99.99	10.25	7.240E+04	9.963E+03	7.27
4	9.82	9.47	-99.99	-99.99	-99.99	9.64	7.193E+04	1.101E+04	6.53
5	9.09	12.38	-99.99	-99.99	-99.99	10.73	7.194E+04	9.599E+03	7.49

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.07	5.77	1.58	2.17	2.16	4.81	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	8.07	8.09	-99.99	-99.99	-99.99	8.08	7.291E+04	1.366E+04	5.34
2	9.76	10.14	-99.99	-99.99	-99.99	9.95	7.306E+04	1.032E+04	7.08
3	10.12	10.39	-99.99	-99.99	-99.99	10.25	7.242E+04	9.975E+03	7.26
4	9.89	9.48	-99.99	-99.99	-99.99	9.68	7.193E+04	1.096E+04	6.56
5	9.09	12.38	-99.99	-99.99	-99.99	10.73	7.193E+04	9.610E+03	7.49

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.46	6.13	1.59	2.16	2.15	5.06	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	6.67	6.93	-99.99	-99.99	-99.99	6.80	5.062E+04	1.198E+04	4.23
2	7.80	8.08	-99.99	-99.99	-99.99	7.94	5.074E+04	9.694E+03	5.23
3	8.05	8.35	-99.99	-99.99	-99.99	8.20	5.031E+04	9.366E+03	5.37
4	8.28	8.06	-99.99	-99.99	-99.99	8.17	4.995E+04	9.580E+03	5.21
5	8.04	10.41	-99.99	-99.99	-99.99	9.23	4.993E+04	8.126E+03	6.14

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.49	6.16	1.60	2.17	2.16	5.08	2.17			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.73	6.98-99.99-99.99-99.99-99.99	6.86	5.061E+04	1.185E+04	4.27				
2	7.82	8.11-99.99-99.99-99.99-99.99	7.96	5.074E+04	9.670E+03	5.25				
3	8.06	8.35-99.99-99.99-99.99-99.99	8.20	5.032E+04	9.381E+03	5.36				
4	8.27	8.06-99.99-99.99-99.99-99.99	8.16	4.996E+04	9.612E+03	5.20				
5	8.08	10.46-99.99-99.99-99.99-99.99	9.27	4.992E+04	8.091E+03	6.17				

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.36	7.02	1.69	2.16	2.15	5.69	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.56	5.63-99.99-99.99-99.99-99.99	5.60	3.357E+04	1.068E+04	3.14				
2	6.40	6.60-99.99-99.99-99.99-99.99	6.50	3.370E+04	8.592E+03	3.92				
3	6.86	6.96-99.99-99.99-99.99-99.99	6.91	3.342E+04	7.950E+03	4.20				
4	7.29	7.10-99.99-99.99-99.99-99.99	7.19	3.316E+04	7.609E+03	4.36				
5	7.22	8.84-99.99-99.99-99.99-99.99	8.03	3.313E+04	6.541E+03	5.07				

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.41	7.04	1.69	2.16	2.16	5.72	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.57	5.65-99.99-99.99-99.99-99.99	5.61	3.353E+04	1.061E+04	3.16				
2	6.40	6.61-99.99-99.99-99.99-99.99	6.51	3.364E+04	8.567E+03	3.93				
3	6.85	6.97-99.99-99.99-99.99-99.99	6.91	3.336E+04	7.943E+03	4.20				
4	7.28	7.10-99.99-99.99-99.99-99.99	7.19	3.311E+04	7.610E+03	4.35				
5	7.22	8.85-99.99-99.99-99.99-99.99	8.04	3.307E+04	6.520E+03	5.07				

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.69	6.80	1.75	2.24	2.23	5.75	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.88	4.82-99.99-99.99-99.99-99.99	4.85	2.087E+04	8.652E+03	2.41				
2	5.57	5.71-99.99-99.99-99.99-99.99	5.64	2.098E+04	6.832E+03	3.07				
3	6.14	6.08-99.99-99.99-99.99-99.99	6.11	2.080E+04	6.104E+03	3.41				
4	6.54	6.39-99.99-99.99-99.99-99.99	6.46	2.063E+04	5.670E+03	3.64				
5	6.73	7.67-99.99-99.99-99.99-99.99	7.20	2.061E+04	4.856E+03	4.24				

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.69	6.75	1.77	2.24	2.24	5.73	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.92	4.85-99.99-99.99-99.99-99.99	4.88	2.090E+04	8.580E+03	2.44				
2	5.59	5.71-99.99-99.99-99.99-99.99	5.65	2.101E+04	6.828E+03	3.08				
3	6.14	6.09-99.99-99.99-99.99-99.99	6.11	2.084E+04	6.117E+03	3.41				
4	6.53	6.40-99.99-99.99-99.99-99.99	6.47	2.066E+04	5.686E+03	3.63				
5	6.74	7.65-99.99-99.99-99.99-99.99	7.20	2.064E+04	4.875E+03	4.23				

Data Set Number = 11

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.59	6.19	1.69	2.19	2.20	5.49	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.34	4.26	-99.99	-99.99	-99.99	-99.99	4.30	1.326E+04	6.782E+03	1.96
2	4.92	4.96	-99.99	-99.99	-99.99	-99.99	4.94	1.336E+04	5.416E+03	2.47
3	5.40	5.29	-99.99	-99.99	-99.99	-99.99	5.35	1.324E+04	4.822E+03	2.75
4	5.82	5.72	-99.99	-99.99	-99.99	-99.99	5.77	1.313E+04	4.320E+03	3.04
5	6.06	6.62	-99.99	-99.99	-99.99	-99.99	6.34	1.312E+04	3.771E+03	3.48

Data Set Number = 12

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.59	6.13	1.69	2.20	2.21	5.47	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.33	4.27	-99.99	-99.99	-99.99	-99.99	4.30	1.299E+04	6.679E+03	1.95
2	4.93	4.96	-99.99	-99.99	-99.99	-99.99	4.94	1.309E+04	5.323E+03	2.46
3	5.41	5.31	-99.99	-99.99	-99.99	-99.99	5.36	1.299E+04	4.731E+03	2.75
4	5.82	5.75	-99.99	-99.99	-99.99	-99.99	5.78	1.288E+04	4.234E+03	3.04
5	6.05	6.60	-99.99	-99.99	-99.99	-99.99	6.33	1.287E+04	3.722E+03	3.46

Data Set Number = 13

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.53	6.28	1.59	2.12	2.16	5.47	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.86	3.80	-99.99	-99.99	-99.99	-99.99	3.83	8.530E+03	5.414E+03	1.58
2	4.37	4.35	-99.99	-99.99	-99.99	-99.99	4.36	8.623E+03	4.375E+03	1.97
3	4.86	4.71	-99.99	-99.99	-99.99	-99.99	4.78	8.554E+03	3.768E+03	2.27
4	5.09	5.05	-99.99	-99.99	-99.99	-99.99	5.07	8.465E+03	3.481E+03	2.43
5	5.30	5.62	-99.99	-99.99	-99.99	-99.99	5.46	8.458E+03	3.145E+03	2.69

Data Set Number = 14

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.54	6.32	1.61	2.15	2.17	5.49	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.88	3.82	-99.99	-99.99	-99.99	-99.99	3.85	8.547E+03	5.439E+03	1.57
2	4.38	4.37	-99.99	-99.99	-99.99	-99.99	4.37	8.635E+03	4.390E+03	1.97
3	4.86	4.73	-99.99	-99.99	-99.99	-99.99	4.80	8.563E+03	3.787E+03	2.26
4	5.11	5.06	-99.99	-99.99	-99.99	-99.99	5.08	8.485E+03	3.506E+03	2.42
5	5.34	5.65	-99.99	-99.99	-99.99	-99.99	5.49	8.473E+03	3.137E+03	2.70

Data Set Number = 15

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav			
	8.59	6.48	1.57	2.16	2.18	5.55	2.17			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.59	3.56	-99.99	-99.99	-99.99	-99.99	3.57	5.621E+03	4.308E+03	1.30
2	4.02	3.99	-99.99	-99.99	-99.99	-99.99	4.01	5.698E+03	3.542E+03	1.61
3	4.38	4.25	-99.99	-99.99	-99.99	-99.99	4.31	5.649E+03	3.163E+03	1.79
4	4.58	4.53	-99.99	-99.99	-99.99	-99.99	4.56	5.599E+03	2.939E+03	1.90
5	4.73	4.95	-99.99	-99.99	-99.99	-99.99	4.84	5.585E+03	2.710E+03	2.06

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.62	6.53	1.57	2.16	2.19	5.57	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.60	3.57	-99.99	-99.99	-99.99	-99.99	3.58	5.61E+03	4.298E+03	1.31
2	4.03	4.02	-99.99	-99.99	-99.99	-99.99	4.03	5.690E+03	3.505E+03	1.62
3	4.37	4.27	-99.99	-99.99	-99.99	-99.99	4.32	5.645E+03	3.157E+03	1.79
4	4.59	4.55	-99.99	-99.99	-99.99	-99.99	4.57	5.588E+03	2.927E+03	1.91
5	4.75	4.94	-99.99	-99.99	-99.99	-99.99	4.84	5.579E+03	2.718E+03	2.05

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.89	6.76	1.51	2.18	2.17	5.72	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.29	3.26	-99.99	-99.99	-99.99	-99.99	3.28	3.307E+03	3.249E+03	1.02
2	3.63	3.59	-99.99	-99.99	-99.99	-99.99	3.61	3.364E+03	2.756E+03	1.22
3	3.90	3.76	-99.99	-99.99	-99.99	-99.99	3.83	3.340E+03	2.542E+03	1.31
4	4.11	4.02	-99.99	-99.99	-99.99	-99.99	4.07	3.300E+03	2.325E+03	1.42
5	4.27	4.39	-99.99	-99.99	-99.99	-99.99	4.33	3.296E+03	2.119E+03	1.56

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.97	6.77	1.51	2.18	2.18	5.75	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.31	3.27	-99.99	-99.99	-99.99	-99.99	3.29	3.304E+03	3.217E+03	1.03
2	3.63	3.60	-99.99	-99.99	-99.99	-99.99	3.62	3.362E+03	2.740E+03	1.23
3	3.90	3.77	-99.99	-99.99	-99.99	-99.99	3.84	3.333E+03	2.530E+03	1.32
4	4.11	4.04	-99.99	-99.99	-99.99	-99.99	4.08	3.296E+03	2.308E+03	1.43
5	4.27	4.39	-99.99	-99.99	-99.99	-99.99	4.33	3.292E+03	2.118E+03	1.55

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.55	7.13	1.47	2.19	2.15	6.05	2.17			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.14	3.04	-99.99	-99.99	-99.99	-99.99	3.09	2.081E+03	2.447E+03	.85
2	3.43	3.34	-99.99	-99.99	-99.99	-99.99	3.38	2.127E+03	2.101E+03	1.01
3	3.70	3.51	-99.99	-99.99	-99.99	-99.99	3.61	2.109E+03	1.908E+03	1.11
4	3.93	3.82	-99.99	-99.99	-99.99	-99.99	3.87	2.086E+03	1.679E+03	1.24
5	3.97	4.08	-99.99	-99.99	-99.99	-99.99	4.03	2.082E+03	1.641E+03	1.27

Data Set Number = 20

	Tv1	Tv2	Tv3	Tlc1	Tld2	Tvav	Tldav			
	9.58	7.17	1.47	2.19	2.15	6.07	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.15	3.08	-99.99	-99.99	-99.99	-99.99	3.11	2.086E+03	2.397E+03	.87
2	3.43	3.34	-99.99	-99.99	-99.99	-99.99	3.38	2.131E+03	2.101E+03	1.01
3	3.71	3.51	-99.99	-99.99	-99.99	-99.99	3.61	2.115E+03	1.901E+03	1.11
4	3.94	3.82	-99.99	-99.99	-99.99	-99.99	3.88	2.090E+03	1.670E+03	1.25
5	3.97	4.07	-99.99	-99.99	-99.99	-99.99	4.02	2.086E+03	1.648E+03	1.27

NOTE: 20 X-Y pairs were stored in plot data file PDFND97

Disk number = 18  
 File name: D:\ND98  
 This data set taken on : 05/03/12/36:29

Data Set Number = 1

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	13.05	11.30	1.79	2.28	2.26	8.71	2.27

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.62	9.61-99.99	99.99-99.99	99.99-99.99	99.99-99.99	9.62	9.62	9.738E+04	1.476E+04	6.60

Data Set Number = 2

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	13.03	11.26	1.79	2.28	2.26	8.70	2.27

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.67	9.63-99.99	99.99-99.99	99.99-99.99	99.99-99.99	9.65	9.65	9.752E+04	1.473E+04	6.62

Data Set Number = 3

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	12.75	11.08	1.81	2.32	2.31	8.55	2.31

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.93	8.93-99.99	99.99-99.99	99.99-99.99	99.99-99.99	8.93	8.93	7.853E+04	1.308E+04	6.00

Data Set Number = 4

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	12.71	11.06	1.81	2.31	2.30	8.53	2.31

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.92	8.97-99.99	99.99-99.99	99.99-99.99	99.99-99.99	8.95	8.95	7.847E+04	1.302E+04	6.03

Data Set Number = 5

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	12.60	11.00	1.73	2.25	2.24	8.45	2.25

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.93	8.15-99.99	99.99-99.99	99.99-99.99	99.99-99.99	8.04	8.04	5.554E+04	1.040E+04	5.34

Data Set Number = 6

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	12.59	11.00	1.72	2.25	2.23	8.44	2.24

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.68	8.10-99.99	99.99-99.99	99.99-99.99	99.99-99.99	7.99	7.99	5.546E+04	1.047E+04	5.30

Data Set Number = 7

	Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
	12.68	11.04	1.73	2.23	2.22	8.48	2.22

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.05	7.29-99.99	99.99-99.99	99.99-99.99	99.99-99.99	7.18	7.18	3.661E+04	7.898E+03	4.64

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.71	11.03	1.73	2.24	2.22	8.49	2.23

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.12	7.31	99.99	99.99	99.99	99.99	7.22	3.663E+04	7.844E+03	4.67	

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.21	11.27	1.59	2.16	2.13	8.69	2.15

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.31	6.47	99.99	99.99	99.99	99.99	6.39	2.328E+04	5.789E+03	4.02	

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.25	11.28	1.57	2.15	2.12	8.70	2.14

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.29	6.45	99.99	99.99	99.99	99.99	6.37	2.330E+04	5.815E+03	4.01	

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.48	11.77	1.59	2.14	2.11	8.95	2.13

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.88	5.97	99.99	99.99	99.99	99.99	5.92	1.450E+04	3.988E+03	3.64	

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.48	11.86	1.61	2.15	2.14	8.99	2.15

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.91	5.99	99.99	99.99	99.99	99.99	5.95	1.451E+04	3.984E+03	3.64	

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.56	12.39	1.70	2.26	2.26	9.22	2.26

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.63	5.77	99.99	99.99	99.99	99.99	5.67	1.007E+04	3.065E+03	3.29	

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.57	12.43	1.67	2.26	2.26	9.22	2.26

Tube #	1	2	3	4	5	6	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.62	5.69	99.99	99.99	99.99	99.99	5.66	1.011E+04	3.096E+03	3.27	

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.58	12.65	1.61	2.23	2.22	9.28	2.23	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	5.27	5.33-99.99	99.99-99.99	99.99-99.99	99.99	5.30	7.093E+03	2.392E+03
								2.96

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.58	12.67	1.61	2.22	2.22	9.28	2.22	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	5.25	5.32-99.99	99.99-99.99	99.99-99.99	99.99	5.29	7.065E+03	2.396E+03
								2.96

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.59	12.77	1.49	2.18	2.15	9.28	2.17	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	4.83	4.86-99.99	99.99-99.99	99.99-99.99	99.99	4.84	4.122E+03	1.590E+03
								2.59

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.59	12.75	1.49	2.17	2.16	9.28	2.16	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	4.83	4.84-99.99	99.99-99.99	99.99-99.99	99.99	4.84	4.118E+03	1.591E+03
								2.59

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.59	12.80	1.31	2.12	2.09	9.23	2.11	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	4.37	4.25-99.99	99.99-99.99	99.99-99.99	99.99	4.29	1.880E+03	8.897E+02
								2.11

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.58	12.81	1.31	2.10	2.09	9.23	2.11	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	4.34	4.25-99.99	99.99-99.99	99.99-99.99	99.99	4.29	1.876E+03	8.851E+02
								2.12

NOTE: 22 x-() pairs were stored in plot data file PDFND98

Dist number = 18

File name: DFND98

This data set taken on: 05 03 11 34 24

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.12	11.82	1.61	2.13	2.14	9.18	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.19	9.06-99.99	99.99-99.99	99.99-99.99	99.99	9.14	9.14	9.459E+04	1.509E+04	6.27
2	11.89	12.46-99.99	99.99-99.99	99.99-99.99	99.99	12.18	12.18	9.472E+04	1.032E+04	9.18

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.08	11.83	1.60	2.14	2.14	9.17	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.18	9.14-99.99	99.99-99.99	99.99-99.99	99.99	9.16	9.16	9.453E+04	1.503E+04	6.29
2	11.87	12.41-99.99	99.99-99.99	99.99-99.99	99.99	12.14	12.14	9.464E+04	1.036E+04	9.14

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.43	11.82	1.60	2.13	2.13	8.95	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.38	8.30-99.99	99.99-99.99	99.99-99.99	99.99	8.34	8.34	7.670E+04	1.367E+04	5.61
2	10.80	11.18-99.99	99.99-99.99	99.99-99.99	99.99	10.99	10.99	7.679E+04	9.452E+03	8.12

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.37	11.82	1.61	2.14	2.14	8.94	2.14

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.35	6.27-99.99	99.99-99.99	99.99-99.99	99.99	6.31	6.31	7.501E+04	1.344E+04	5.58
2	10.77	11.17-99.99	99.99-99.99	99.99-99.99	99.99	10.97	10.97	7.511E+04	9.266E+03	8.11

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.17	11.68	1.74	2.27	2.28	8.86	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.34	7.47-99.99	99.99-99.99	99.99-99.99	99.99	7.40	7.40	5.401E+04	1.152E+04	4.69
2	9.44	9.65-99.99	99.99-99.99	99.99-99.99	99.99	9.55	9.55	5.412E+04	8.073E+03	6.70

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.16	11.65	1.74	2.26	2.27	8.85	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	7.36	7.47-99.99	99.99-99.99	99.99-99.99	99.99	7.42	7.42	5.406E+04	1.146E+04	4.71
2	9.46	9.68-99.99	99.99-99.99	99.99-99.99	99.99	9.57	9.57	5.416E+04	8.045E+03	6.73

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.13	11.53	1.73	2.27	2.26	8.80	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.46	6.63	-99.99	-99.99	-99.99	-99.99	6.55	3.545E+04	8.921E+03	3.97
2	8.16	8.32	-99.99	-99.99	-99.99	-99.99	8.24	3.555E+04	6.424E+03	5.53

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.13	11.53	1.73	2.26	2.26	8.79	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.46	6.63	-99.99	-99.99	-99.99	-99.99	6.54	3.543E+04	8.916E+03	3.97
2	8.15	8.29	-99.99	-99.99	-99.99	-99.99	8.22	3.555E+04	6.438E+03	5.52

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.18	11.50	1.70	2.24	2.25	8.80	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.78	5.92	-99.99	-99.99	-99.99	-99.99	5.85	2.293E+04	6.778E+03	3.38
2	7.22	7.30	-99.99	-99.99	-99.99	-99.99	7.26	2.303E+04	4.936E+03	4.67

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.18	11.51	1.69	2.24	2.24	8.80	2.24			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.79	5.91	-99.99	-99.99	-99.99	-99.99	5.85	2.285E+04	6.737E+03	3.39
2	7.22	7.30	-99.99	-99.99	-99.99	-99.99	7.26	2.297E+04	4.915E+03	4.67

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.50	11.82	1.69	2.25	2.26	9.01	2.25			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.15	5.27	-99.99	-99.99	-99.99	-99.99	5.22	1.443E+04	5.138E+03	2.81
2	6.59	6.58	-99.99	-99.99	-99.99	-99.99	6.57	1.453E+04	3.606E+03	4.03

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.57	11.85	1.69	2.25	2.25	9.04	2.25			
Tube	Wall Temperatures (Deg C)						Tnave	Gdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.17	5.26	-99.99	-99.99	-99.99	-99.99	5.22	1.445E+04	5.146E+03	2.81
2	6.59	6.57	-99.99	-99.99	-99.99	-99.99	6.57	1.455E+04	3.609E+03	4.03

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.84	12.04	1.62	2.20	2.20	9.17	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.58	4.69	99.99	99.99	99.99	99.99	4.64	9.408E+03	4.065E+03	2.31
2	6.08	6.01	99.99	99.99	99.99	99.99	6.04	9.493E+03	2.642E+03	3.59

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.86	12.16	1.64	2.21	2.21	9.22	2.21

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.61	4.73	99.99	99.99	99.99	99.99	4.67	9.415E+03	4.037E+03	2.33
2	6.10	6.03	99.99	99.99	99.99	99.99	6.06	9.502E+03	2.642E+03	3.60

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.98	12.85	1.59	2.23	2.23	9.48	2.23

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.10	4.21	99.99	99.99	99.99	99.99	4.16	6.394E+03	3.499E+03	1.83
2	5.70	5.61	99.99	99.99	99.99	99.99	5.66	6.465E+03	2.022E+03	3.20

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.00	12.97	1.56	2.22	2.21	9.52	2.21

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.11	4.20	99.99	99.99	99.99	99.99	4.15	6.405E+03	3.481E+03	1.84
2	5.70	5.61	99.99	99.99	99.99	99.99	5.65	6.486E+03	2.021E+03	3.21

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.04	13.23	1.51	2.20	2.20	9.59	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.65	3.65	99.99	99.99	99.99	99.99	3.65	3.673E+03	2.677E+03	1.37
2	5.18	5.09	99.99	99.99	99.99	99.99	5.14	3.731E+03	1.368E+03	2.73

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.04	13.23	1.49	2.18	2.18	9.59	2.18

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.64	3.62	99.99	99.99	99.99	99.99	3.63	3.666E+03	2.683E+03	1.37
2	5.17	5.06	99.99	99.99	99.99	99.99	5.11	3.727E+03	1.369E+03	2.72

Data Set Number = 19

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	14.02	13.26	1.46	2.15	2.15	9.58	2.15

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.38	3.33	-99.99	-99.99	-99.99	-99.99	3.36	1.710E+03	1.502E+03	1.14
2	4.78	4.66	-99.99	-99.99	-99.99	-99.99	4.72	1.750E+03	7.382E+02	2.37

Data Set Number = 20

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	14.02	13.25	1.46	2.17	2.14	9.58	2.16

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.41	3.35	-99.99	-99.99	-99.99	-99.99	3.38	1.708E+03	1.481E+03	1.15
2	4.77	4.66	-99.99	-99.99	-99.99	-99.99	4.72	1.747E+03	7.404E+02	2.36

NOTE: 20 X-Y pairs were stored in plot data file PDFND99

Dist number = 18  
 File name: DFND100  
 This data set taken on : 05:03:10:36:38

Data Set Number = 1

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	14.83	12.66	1.60	2.16	2.17	9.76	2.17

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.92	9.03	-99.99	-99.99	-99.99	-99.99	9.00	8.962E+04	1.463E+04	6.14
2	11.20	11.67	-99.99	-99.99	-99.99	-99.99	11.44	8.997E+04	1.066E+04	8.44
3	12.02	12.43	-99.99	-99.99	-99.99	-99.99	12.23	8.913E+04	9.784E+03	9.11

Data Set Number = 2

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	14.81	12.84	1.60	2.16	2.16	9.75	2.16

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.99	9.07	-99.99	-99.99	-99.99	-99.99	9.03	8.992E+04	1.458E+04	6.17
2	11.17	11.66	-99.99	-99.99	-99.99	-99.99	11.42	9.003E+04	1.069E+04	8.43
3	12.00	12.39	-99.99	-99.99	-99.99	-99.99	12.19	8.921E+04	9.828E+03	9.08

Data Set Number = 3

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
	14.66	12.65	1.57	2.13	2.14	9.63	2.14

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.88	7.96	-99.99	-99.99	-99.99	-99.99	7.93	7.272E+04	1.393E+04	5.22
2	8.96	10.35	-99.99	-99.99	-99.99	-99.99	10.16	7.262E+04	9.945E+03	7.32
3	10.94	11.17	-99.99	-99.99	-99.99	-99.99	11.06	7.215E+04	8.916E+03	8.09

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.65	12.65	1.59	2.14	2.15	9.63	2.15

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.95	8.07	99.99	99.99	99.99	99.99	8.01	7.271E+04	1.375E+04	5.29
2	9.99	10.38	99.99	99.99	99.99	99.99	10.19	7.283E+04	9.929E+03	7.33
3	10.91	11.18	99.99	99.99	99.99	99.99	11.05	7.214E+04	8.936E+03	8.07

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.30	12.94	1.56	2.11	2.12	9.60	2.12

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.74	6.86	99.99	99.99	99.99	99.99	6.81	5.050E+04	1.181E+04	4.28
2	8.46	8.72	99.99	99.99	99.99	99.99	8.59	5.052E+04	8.540E+03	5.93
3	9.62	9.64	99.99	99.99	99.99	99.99	9.63	5.015E+04	7.330E+03	6.84

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.31	12.98	1.56	2.11	2.12	9.62	2.11

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.73	6.89	99.99	99.99	99.99	99.99	6.81	5.041E+04	1.177E+04	4.28
2	8.45	8.73	99.99	99.99	99.99	99.99	8.59	5.054E+04	8.521E+03	5.93
3	9.70	9.64	99.99	99.99	99.99	99.99	9.67	5.007E+04	7.274E+03	6.88

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.99	13.07	1.65	2.19	2.20	9.57	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.18	6.25	99.99	99.99	99.99	99.99	6.22	3.357E+04	9.010E+03	3.73
2	7.45	7.65	99.99	99.99	99.99	99.99	7.55	3.368E+04	6.834E+03	4.93
3	8.67	8.56	99.99	99.99	99.99	99.99	8.61	3.337E+04	5.690E+03	5.87

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.97	13.06	1.65	2.20	2.21	9.56	2.21

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.23	6.30	99.99	99.99	99.99	99.99	6.27	3.353E+04	8.909E+03	3.76
2	7.47	7.66	99.99	99.99	99.99	99.99	7.57	3.368E+04	6.826E+03	4.93
3	8.71	8.55	99.99	99.99	99.99	99.99	8.63	3.338E+04	5.684E+03	5.87

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.93	12.86	1.71	2.26	2.27	9.50	2.27

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.65	5.77	99.99	99.99	99.99	99.99	5.71	2.107E+04	6.511E+03	3.24
2	6.73	6.85	99.99	99.99	99.99	99.99	6.79	2.118E+04	5.050E+03	4.18
3	7.72	7.59	99.99	99.99	99.99	99.99	7.65	2.098E+04	4.263E+03	4.92

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	13.93	12.85	1.72	2.27	2.28	9.50	2.27			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.63	5.72	99.99	99.99	99.99	99.99	5.67	2.111E+04	6.613E+03	3.19
2	6.74	6.85	99.99	99.99	99.99	99.99	6.80	2.123E+04	5.872E+03	4.18
3	7.73	7.61	99.99	99.99	99.99	99.99	7.67	2.103E+04	4.262E+03	4.93

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.16	12.70	1.65	2.22	2.24	9.50	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.11	5.14	99.99	99.99	99.99	99.99	5.12	1.338E+04	4.882E+03	2.74
2	5.98	5.98	99.99	99.99	99.99	99.99	5.98	1.348E+04	3.890E+03	3.46
3	6.85	6.76	99.99	99.99	99.99	99.99	6.81	1.335E+04	3.206E+03	4.16

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.21	12.73	1.64	2.22	2.24	9.53	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.11	5.13	99.99	99.99	99.99	99.99	5.12	1.340E+04	4.895E+03	2.74
2	5.97	6.00	99.99	99.99	99.99	99.99	5.99	1.349E+04	3.886E+03	3.47
3	6.85	6.79	99.99	99.99	99.99	99.99	6.82	1.337E+04	3.201E+03	4.18

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.53	13.01	1.56	2.17	2.21	9.70	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.61	4.63	99.99	99.99	99.99	99.99	4.62	8.795E+03	3.805E+03	2.31
2	5.23	5.22	99.99	99.99	99.99	99.99	5.22	8.803E+03	3.190E+03	2.78
3	6.25	6.16	99.99	99.99	99.99	99.99	6.21	8.804E+03	2.419E+03	3.64

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.55	12.10	1.55	2.17	2.21	9.74	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.63	4.64	99.99	99.99	99.99	99.99	4.63	8.775E+03	3.774E+03	2.33
2	5.26	5.22	99.99	99.99	99.99	99.99	5.24	8.862E+03	3.161E+03	2.80
3	6.24	6.16	99.99	99.99	99.99	99.99	6.20	8.778E+03	2.416E+03	3.63

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.75	13.75	1.52	2.18	2.24	10.01	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.23	4.25	99.99	99.99	99.99	99.99	4.24	5.608E+03	2.698E+03	1.93
2	4.66	4.59	99.99	99.99	99.99	99.99	4.62	5.680E+03	2.597E+03	2.19
3	5.70	5.66	99.99	99.99	99.99	99.99	5.68	5.630E+03	1.808E+03	3.11

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.75	13.79	1.53	2.19	2.24	10.02	2.22			
Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.23	4.27	99.99	99.99	99.99	99.99	4.25	5.594E+03	2.879E+03	1.94
2	4.67	4.60	99.99	99.99	99.99	99.99	4.63	5.664E+03	2.583E+03	2.19
3	5.71	5.64	99.99	99.99	99.99	99.99	5.68	5.613E+03	1.805E+03	3.11

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.81	14.05	1.59	2.26	2.28	10.15	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.90	3.88	99.99	99.99	99.99	99.99	3.89	3.192E+03	2.068E+03	1.54
2	4.29	4.20	99.99	99.99	99.99	99.99	4.25	3.249E+03	1.837E+03	1.77
3	5.29	5.31	99.99	99.99	99.99	99.99	5.30	3.216E+03	1.194E+03	2.69

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.82	14.06	1.59	2.26	2.28	10.16	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.92	3.89	99.99	99.99	99.99	99.99	3.90	3.188E+03	2.052E+03	1.55
2	4.29	4.21	99.99	99.99	99.99	99.99	4.25	3.243E+03	1.829E+03	1.77
3	5.29	5.32	99.99	99.99	99.99	99.99	5.31	3.212E+03	1.192E+03	2.70

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.80	14.14	1.53	2.33	2.28	10.16	2.31			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.53	3.43	99.99	99.99	99.99	99.99	3.48	1.619E+03	1.460E+03	1.11
2	3.94	3.80	99.99	99.99	99.99	99.99	3.87	1.657E+03	1.214E+03	1.36
3	4.80	4.78	99.99	99.99	99.99	99.99	4.79	1.642E+03	7.506E+02	2.16

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	14.62	14.09	1.49	2.31	2.28	10.13	2.29			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.51	3.40	99.99	99.99	99.99	99.99	3.45	1.623E+03	1.488E+03	1.09
2	3.92	3.76	99.99	99.99	99.99	99.99	3.84	1.661E+03	1.228E+03	1.35
3	4.75	4.75	99.99	99.99	99.99	99.99	4.75	1.644E+03	7.709E+02	2.13

NOTE: 20 X-Y pairs were stored in plot data file PDFND100

Dist number = 18

File name: DFND101

This data set taken on 05 02 22 11:13

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.56	7.80	1.68	2.27	2.26	6.68	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.41	9.57	99.99	99.99	99.99	99.99	9.49	9.785E+04	1.510E+04	6.48
2	11.78	12.33	99.99	99.99	99.99	99.99	12.05	9.798E+04	1.100E+04	8.91
3	12.54	13.14	99.99	99.99	99.99	99.99	12.84	9.705E+04	1.014E+04	9.57
4	11.77	11.50	99.99	99.99	99.99	99.99	11.64	9.650E+04	1.171E+04	8.24

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.51	7.67	1.69	2.26	2.26	6.62	2.26			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	9.31	9.56	99.99	99.99	99.99	99.99	9.43	9.796E+04	1.526E+04	6.42
2	11.82	12.34	99.99	99.99	99.99	99.99	12.08	9.806E+04	1.097E+04	8.94
3	12.53	13.14	99.99	99.99	99.99	99.99	12.83	9.712E+04	1.015E+04	9.57
4	11.75	11.48	99.99	99.99	99.99	99.99	11.62	9.658E+04	1.174E+04	8.23

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.33	7.31	1.64	2.21	2.21	6.42	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.23	8.45	99.99	99.99	99.99	99.99	8.35	8.016E+04	1.456E+04	5.51
2	10.42	10.85	99.99	99.99	99.99	99.99	10.64	8.030E+04	1.047E+04	7.67
3	11.08	11.68	99.99	99.99	99.99	99.99	11.38	7.951E+04	9.596E+03	8.29
4	10.71	10.65	99.99	99.99	99.99	99.99	10.69	7.906E+04	1.058E+04	7.47

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.32	7.27	1.64	2.22	2.21	6.41	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.24	8.46	99.99	99.99	99.99	99.99	8.35	8.028E+04	1.457E+04	5.51
2	10.43	10.85	99.99	99.99	99.99	99.99	10.64	8.042E+04	1.049E+04	7.67
3	11.10	11.68	99.99	99.99	99.99	99.99	11.39	7.964E+04	9.607E+03	8.29
4	10.80	10.68	99.99	99.99	99.99	99.99	10.74	7.916E+04	1.053E+04	7.52

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.64	7.17	1.64	2.21	2.21	6.15	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.78	6.98	99.99	99.99	99.99	99.99	6.88	5.622E+04	1.234E+04	4.21
2	8.64	8.95	99.99	99.99	99.99	99.99	8.76	5.635E+04	9.442E+03	5.97
3	9.58	9.88	99.99	99.99	99.99	99.99	9.73	5.582E+04	8.199E+03	6.81
4	9.40	9.48	99.99	99.99	99.99	99.99	9.45	5.545E+04	8.661E+03	6.40

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.65	7.15	1.65	2.22	2.23	6.15	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	6.82	6.98-99.99-99.99-99.99-99.99	6.90	5.624E+04	1.334E+04	4.22
2	8.65	8.90-99.99-99.99-99.99-99.99	8.78	5.637E+04	9.456E+03	5.96
3	9.60	9.89-99.99-99.99-99.99-99.99	9.75	5.583E+04	8.202E+03	6.81
4	9.40	9.50-99.99-99.99-99.99-99.99	9.45	5.549E+04	8.687E+03	6.39

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.18	7.24	1.57	2.16	2.17	6.00	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	5.94	6.07-99.99-99.99-99.99-99.99	6.00	3.757E+04	1.069E+04	3.51
2	7.34	7.50-99.99-99.99-99.99-99.99	7.42	3.770E+04	7.852E+03	4.80
3	8.45	8.45-99.99-99.99-99.99-99.99	8.45	3.734E+04	6.540E+03	5.70
4	8.21	8.47-99.99-99.99-99.99-99.99	8.34	3.710E+04	6.782E+03	5.47

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.14	7.27	1.60	2.16	2.18	6.01	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	5.94	6.09-99.99-99.99-99.99-99.99	6.01	3.747E+04	1.065E+04	3.52
2	7.35	7.53-99.99-99.99-99.99-99.99	7.44	3.759E+04	7.799E+03	4.82
3	8.46	8.47-99.99-99.99-99.99-99.99	8.47	3.722E+04	6.512E+03	5.72
4	8.19	8.44-99.99-99.99-99.99-99.99	8.31	3.698E+04	6.804E+03	5.43

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.97	7.25	1.61	2.17	2.20	5.95	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	5.48	5.58-99.99-99.99-99.99-99.99	5.53	2.392E+04	7.680E+03	3.12
2	6.54	6.71-99.99-99.99-99.99-99.99	6.62	2.404E+04	5.890E+03	4.08
3	7.41	7.32-99.99-99.99-99.99-99.99	7.37	2.381E+04	5.070E+03	4.70
4	7.32	7.64-99.99-99.99-99.99-99.99	7.48	2.364E+04	5.049E+03	4.68

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.96	7.26	1.63	2.18	2.21	5.95	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	5.51	5.62-99.99-99.99-99.99-99.99	5.57	2.398E+04	7.627E+03	3.14
2	6.55	6.71-99.99-99.99-99.99-99.99	6.64	2.409E+04	5.896E+03	4.09
3	7.43	7.33-99.99-99.99-99.99-99.99	7.38	2.384E+04	5.073E+03	4.70
4	7.38	7.62-99.99-99.99-99.99-99.99	7.50	2.369E+04	5.050E+03	4.69

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.04	7.41	1.64	2.23	2.25	6.03	2.24			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.13	5.17	-99.99	-99.99	-99.99	-99.99	5.15	1.516E+04	5.515E+03	2.75
2	6.02	6.07	-99.99	-99.99	-99.99	-99.99	6.04	1.526E+04	4.342E+03	3.51
3	6.42	6.23	-99.99	-99.99	-99.99	-99.99	6.32	1.512E+04	4.125E+03	3.67
4	6.76	7.08	-99.99	-99.99	-99.99	-99.99	6.92	1.501E+04	3.627E+03	4.14

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.06	7.41	1.66	2.24	2.26	6.05	2.25			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.18	5.19	-99.99	-99.99	-99.99	-99.99	5.19	1.518E+04	5.471E+03	2.77
2	6.03	6.09	-99.99	-99.99	-99.99	-99.99	6.06	1.529E+04	4.348E+03	3.52
3	6.43	6.25	-99.99	-99.99	-99.99	-99.99	6.34	1.514E+04	4.129E+03	3.67
4	6.77	7.07	-99.99	-99.99	-99.99	-99.99	6.92	1.502E+04	3.645E+03	4.12

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.42	7.55	1.64	2.25	2.28	6.20	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.78	4.80	-99.99	-99.99	-99.99	-99.99	4.79	1.059E+04	4.427E+03	2.39
2	5.45	5.42	-99.99	-99.99	-99.99	-99.99	5.44	1.069E+04	3.669E+03	2.91
3	5.69	5.45	-99.99	-99.99	-99.99	-99.99	5.57	1.058E+04	3.634E+03	2.91
4	6.34	6.61	-99.99	-99.99	-99.99	-99.99	6.48	1.049E+04	2.843E+03	3.69

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.49	7.54	1.65	2.26	2.28	6.23	2.26			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.80	4.81	-99.99	-99.99	-99.99	-99.99	4.81	1.057E+04	4.388E+03	2.41
2	5.45	5.44	-99.99	-99.99	-99.99	-99.99	5.44	1.067E+04	3.662E+03	2.91
3	5.67	5.45	-99.99	-99.99	-99.99	-99.99	5.56	1.056E+04	3.636E+03	2.90
4	6.34	6.62	-99.99	-99.99	-99.99	-99.99	6.49	1.048E+04	2.829E+03	3.70

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.05	7.71	1.59	2.25	2.28	6.45	2.27			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.40	4.43	-99.99	-99.99	-99.99	-99.99	4.41	7.495E+03	3.676E+03	2.04
2	4.92	4.84	-99.99	-99.99	-99.99	-99.99	4.88	7.579E+03	3.187E+03	2.38
3	5.04	4.83	-99.99	-99.99	-99.99	-99.99	4.94	7.504E+03	3.259E+03	2.30
4	5.93	6.19	-99.99	-99.99	-99.99	-99.99	6.05	7.445E+03	2.258E+03	3.30

Data Set Number = 16

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.12	7.72	1.58	2.23	2.28	6.47	2.26

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	4.39	4.41	-99.99	-99.99	-99.99	-99.99	4.40	7.515E+03	3.695E+03	2.03
2	4.92	4.83	-99.99	-99.99	-99.99	-99.99	4.87	7.600E+03	3.196E+03	2.38
3	5.03	4.82	-99.99	-99.99	-99.99	-99.99	4.93	7.522E+03	3.263E+03	2.31
4	5.92	6.18	-99.99	-99.99	-99.99	-99.99	6.05	7.452E+03	2.258E+03	3.30

Data Set Number = 17

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.54	8.00	1.49	2.18	2.21	6.68	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.87	3.92	-99.99	-99.99	-99.99	-99.99	3.89	4.360E+03	2.704E+03	1.61
2	4.20	4.16	-99.99	-99.99	-99.99	-99.99	4.18	4.428E+03	2.504E+03	1.77
3	4.41	4.26	-99.99	-99.99	-99.99	-99.99	4.34	4.382E+03	2.438E+03	1.80
4	5.41	5.59	-99.99	-99.99	-99.99	-99.99	5.50	4.345E+03	1.534E+03	2.83

Data Set Number = 18

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.60	8.13	1.49	2.20	2.23	6.74	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.90	3.91	-99.99	-99.99	-99.99	-99.99	3.91	4.369E+03	2.718E+03	1.61
2	4.20	4.16	-99.99	-99.99	-99.99	-99.99	4.18	4.435E+03	2.530E+03	1.75
3	4.42	4.27	-99.99	-99.99	-99.99	-99.99	4.35	4.390E+03	2.456E+03	1.79
4	5.41	5.60	-99.99	-99.99	-99.99	-99.99	5.51	4.351E+03	1.543E+03	2.82

Data Set Number = 19

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.81	9.30	1.36	2.13	2.13	7.16	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.31	3.31	-99.99	-99.99	-99.99	-99.99	3.31	2.265E+03	2.047E+03	1.11
2	3.55	3.53	-99.99	-99.99	-99.99	-99.99	3.54	2.313E+03	1.912E+03	1.21
3	3.99	3.88	-99.99	-99.99	-99.99	-99.99	3.94	2.288E+03	1.558E+03	1.48
4	4.87	5.02	-99.99	-99.99	-99.99	-99.99	4.94	2.267E+03	9.634E+02	2.35

Data Set Number = 20

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
10.82	9.36	1.36	2.13	2.13	7.18	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
	1	2	3	4	5	6				
1	3.30	3.31	-99.99	-99.99	-99.99	-99.99	3.30	2.265E+03	2.059E+03	1.10
2	3.56	3.54	-99.99	-99.99	-99.99	-99.99	3.55	2.311E+03	1.897E+03	1.22
3	3.97	3.89	-99.99	-99.99	-99.99	-99.99	3.93	2.286E+03	1.555E+03	1.47
4	4.86	5.01	-99.99	-99.99	-99.99	-99.99	4.94	2.267E+03	9.668E+02	2.35

NOTE 20 X-Y pairs were stored in plot data file POFND101

Dist number = 18

File name: OFND102

This data set taken on : 05 02 21 14 36

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.92	7.19	1.54	2.14	2.13	6.22	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.33	9.49	99.99	99.99	99.99	99.99	9.41	9.550E+04	1.460E+04	6.54
2	11.68	12.10	99.99	99.99	99.99	99.99	11.89	9.564E+04	1.076E+04	8.89
3	12.25	12.70	99.99	99.99	99.99	99.99	12.47	9.472E+04	1.013E+04	9.35
4	11.54	11.21	99.99	99.99	99.99	99.99	11.38	9.419E+04	1.158E+04	8.13
5	10.23	14.59	99.99	99.99	99.99	99.99	12.41	9.431E+04	1.044E+04	9.03

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.87	7.15	1.55	2.13	2.12	6.19	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.30	9.51	99.99	99.99	99.99	99.99	9.41	9.538E+04	1.458E+04	6.54
2	11.68	12.09	99.99	99.99	99.99	99.99	11.88	9.553E+04	1.075E+04	8.89
3	12.24	12.69	99.99	99.99	99.99	99.99	12.47	9.462E+04	1.012E+04	9.35
4	11.52	11.20	99.99	99.99	99.99	99.99	11.36	9.404E+04	1.158E+04	8.12
5	10.22	14.57	99.99	99.99	99.99	99.99	12.40	9.416E+04	1.043E+04	9.03

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.85	6.84	1.56	2.16	2.15	6.09	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	8.26	8.40	99.99	99.99	99.99	99.99	8.23	7.862E+04	1.413E+04	5.56
2	10.27	10.62	99.99	99.99	99.99	99.99	10.45	7.878E+04	1.044E+04	7.55
3	10.75	11.26	99.99	99.99	99.99	99.99	11.01	7.802E+04	9.775E+03	7.98
4	10.62	10.37	99.99	99.99	99.99	99.99	10.50	7.753E+04	1.055E+04	7.35
5	9.44	12.11	99.99	99.99	99.99	99.99	11.08	7.762E+04	9.707E+03	8.00

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.85	6.83	1.57	2.16	2.15	6.08	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.25	6.45	99.99	99.99	99.99	99.99	8.35	7.866E+04	1.411E+04	5.58
2	10.31	10.67	99.99	99.99	99.99	99.99	10.49	7.882E+04	1.039E+04	7.59
3	10.77	11.27	99.99	99.99	99.99	99.99	11.02	7.805E+04	9.764E+03	7.99
4	10.63	10.39	99.99	99.99	99.99	99.99	10.51	7.759E+04	1.055E+04	7.36
5	9.46	12.11	99.99	99.99	99.99	99.99	11.29	7.766E+04	9.704E+03	8.00

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.75	7.04	1.54	2.12	2.12	6.12	2.12			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.57	6.70	99.99	99.99	99.99	99.99	6.64	5.368E+04	1.315E+04	4.08
2	8.13	8.48	99.99	99.99	99.99	99.99	6.33	5.379E+04	9.541E+03	5.64
3	8.84	9.21	99.99	99.99	99.99	99.99	9.02	5.328E+04	8.591E+03	6.21
4	3.02	8.99	99.99	99.99	99.99	99.99	9.02	5.296E+04	8.711E+03	6.08
5	6.48	10.89	99.99	99.99	99.99	99.99	9.68	5.297E+04	8.011E+03	5.61

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.77	7.09	1.56	2.13	2.14	6.14	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.60	6.71	-99.99	-99.99	-99.99	-99.99	6.66	5.364E+04	1.313E+04	4.09
2	8.20	8.48	-99.99	-99.99	-99.99	-99.99	8.34	5.375E+04	9.528E+03	5.64
3	8.05	9.23	-99.99	-99.99	-99.99	-99.99	9.04	5.325E+04	8.568E+03	6.21
4	9.09	9.02	-99.99	-99.99	-99.99	-99.99	9.05	5.294E+04	8.678E+03	6.10
5	8.46	10.08	-99.99	-99.99	-99.99	-99.99	9.67	5.295E+04	8.037E+03	6.59

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.38	7.45	1.57	2.15	2.16	6.14	2.16

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.77	5.80	-99.99	-99.99	-99.99	-99.99	5.78	3.572E+04	1.077E+04	3.32
2	6.95	7.18	-99.99	-99.99	-99.99	-99.99	7.06	3.583E+04	8.020E+03	4.47
3	7.70	7.05	-99.99	-99.99	-99.99	-99.99	7.77	3.548E+04	7.025E+03	5.05
4	7.90	7.93	-99.99	-99.99	-99.99	-99.99	7.91	3.526E+04	6.962E+03	5.06
5	7.80	9.35	-99.99	-99.99	-99.99	-99.99	8.58	3.524E+04	6.298E+03	5.60

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.40	7.45	1.57	2.15	2.16	6.14	2.16

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.73	5.78	-99.99	-99.99	-99.99	-99.99	5.76	3.572E+04	1.086E+04	3.29
2	6.95	7.17	-99.99	-99.99	-99.99	-99.99	7.06	3.584E+04	8.032E+03	4.46
3	7.66	7.86	-99.99	-99.99	-99.99	-99.99	7.76	3.551E+04	7.035E+03	5.03
4	7.90	7.94	-99.99	-99.99	-99.99	-99.99	7.92	3.526E+04	6.956E+03	5.07
5	7.81	9.38	-99.99	-99.99	-99.99	-99.99	8.60	3.526E+04	6.277E+03	5.62

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.19	7.45	1.55	2.15	2.16	6.07	2.16

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.30	5.36	-99.99	-99.99	-99.99	-99.99	5.33	2.278E+04	7.713E+03	2.95
2	6.19	6.33	-99.99	-99.99	-99.99	-99.99	6.26	2.289E+04	6.101E+03	3.75
3	6.91	6.87	-99.99	-99.99	-99.99	-99.99	6.89	2.266E+04	5.329E+03	4.25
4	6.92	7.03	-99.99	-99.99	-99.99	-99.99	6.98	2.251E+04	5.358E+03	4.22
5	7.17	8.17	-99.99	-99.99	-99.99	-99.99	7.67	2.250E+04	4.712E+03	4.78

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.19	7.44	1.55	2.15	2.16	6.06	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.29	5.35	-99.99	-99.99	-99.99	-99.99	5.32	2.283E+04	7.744E+03	2.95
2	6.19	6.33	-99.99	-99.99	-99.99	-99.99	6.26	2.294E+04	6.109E+03	3.76
3	6.91	6.88	-99.99	-99.99	-99.99	-99.99	6.89	2.271E+04	5.330E+03	4.26
4	6.92	7.02	-99.99	-99.99	-99.99	-99.99	6.97	2.255E+04	5.357E+03	4.21
5	7.18	8.13	-99.99	-99.99	-99.99	-99.99	7.66	2.254E+04	4.726E+03	4.77

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.40	7.61	1.54	2.13	2.14	6.18	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.90	4.91-99.99-99.99-99.99-99.99	4.90	1.432E+04	5.481E+03	2.61				
2	5.67	5.71-99.99-99.99-99.99-99.99	5.69	1.442E+04	4.404E+03	3.27				
3	6.09	5.87-99.99-99.99-99.99-99.99	5.98	1.428E+04	4.164E+03	3.43				
4	6.11	6.21-99.99-99.99-99.99-99.99	6.16	1.418E+04	4.071E+03	3.48				
5	6.70	7.27-99.99-99.99-99.99-99.99	6.99	1.417E+04	3.390E+03	4.18				

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.44	7.60	1.53	2.12	2.15	6.19	2.14			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.89	4.89-99.99-99.99-99.99-99.99	4.89	1.431E+04	5.517E+03	2.59				
2	5.69	5.70-99.99-99.99-99.99-99.99	5.70	1.442E+04	4.405E+03	3.27				
3	6.07	5.88-99.99-99.99-99.99-99.99	5.97	1.427E+04	4.170E+03	3.42				
4	6.12	6.21-99.99-99.99-99.99-99.99	6.16	1.417E+04	4.069E+03	3.48				
5	6.66	7.22-99.99-99.99-99.99-99.99	6.94	1.416E+04	3.428E+03	4.13				

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.89	7.84	1.54	2.17	2.20	6.42	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.51	4.53-99.99-99.99-99.99-99.99	4.52	9.380E+03	4.247E+03	2.21				
2	5.15	5.11-99.99-99.99-99.99-99.99	5.13	9.472E+03	3.521E+03	2.69				
3	5.37	5.23-99.99-99.99-99.99-99.99	5.30	9.377E+03	3.429E+03	2.73				
4	5.59	5.55-99.99-99.99-99.99-99.99	5.56	9.303E+03	3.244E+03	2.87				
5	6.35	6.66-99.99-99.99-99.99-99.99	6.50	9.296E+03	2.527E+03	3.69				

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.95	7.95	1.54	2.16	2.21	6.45	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.51	4.53-99.99-99.99-99.99-99.99	4.52	9.419E+03	4.255E+03	2.21				
2	5.14	5.12-99.99-99.99-99.99-99.99	5.13	9.511E+03	3.530E+03	2.69				
3	5.37	5.23-99.99-99.99-99.99-99.99	5.30	9.416E+03	3.447E+03	2.73				
4	5.57	5.57-99.99-99.99-99.99-99.99	5.57	9.336E+03	3.244E+03	2.88				
5	6.35	6.66-99.99-99.99-99.99-99.99	6.51	9.335E+03	2.535E+03	3.69				

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.40	8.05	1.51	2.20	2.24	6.66	2.22			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.12	4.17-99.99-99.99-99.99-99.99	4.14	6.255E+03	3.438E+03	1.82				
2	4.62	4.62-99.99-99.99-99.99-99.99	4.62	6.331E+03	2.919E+03	2.17				
3	4.84	4.73-99.99-99.99-99.99-99.99	4.79	6.268E+03	2.842E+03	2.21				
4	5.09	5.07-99.99-99.99-99.99-99.99	5.06	6.218E+03	2.641E+03	2.35				
5	5.66	6.13-99.99-99.99-99.99-99.99	6.00	6.213E+03	1.963E+03	3.17				

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.45	8.09	1.51	2.19	2.23	6.69	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.10	4.17	-99.99	-99.99	-99.99	-99.99	4.13	6.259E+03	3.438E+03	1.82
2	4.63	4.63	-99.99	-99.99	-99.99	-99.99	4.63	6.337E+03	2.900E+03	2.19
3	4.83	4.73	-99.99	-99.99	-99.99	-99.99	4.78	6.270E+03	2.837E+03	2.21
4	5.10	5.01	-99.99	-99.99	-99.99	-99.99	5.06	6.221E+03	2.641E+03	2.36
5	5.89	6.13	-99.99	-99.99	-99.99	-99.99	6.01	6.219E+03	1.957E+03	3.18

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.77	8.45	1.44	2.19	2.19	6.89	2.19

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.68	3.71	-99.99	-99.99	-99.99	-99.99	3.70	3.689E+03	2.587E+03	1.43
2	4.02	4.01	-99.99	-99.99	-99.99	-99.99	4.02	3.750E+03	2.317E+03	1.62
3	4.29	4.17	-99.99	-99.99	-99.99	-99.99	4.23	3.710E+03	2.181E+03	1.70
4	4.83	4.65	-99.99	-99.99	-99.99	-99.99	4.74	3.680E+03	1.768E+03	2.08
5	5.37	5.52	-99.99	-99.99	-99.99	-99.99	5.45	3.678E+03	1.384E+03	2.66

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.80	8.61	1.46	2.19	2.20	6.96	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.71	3.73	-99.99	-99.99	-99.99	-99.99	3.72	3.689E+03	2.560E+03	1.44
2	4.04	4.03	-99.99	-99.99	-99.99	-99.99	4.04	3.748E+03	2.302E+03	1.63
3	4.30	4.18	-99.99	-99.99	-99.99	-99.99	4.24	3.709E+03	2.181E+03	1.70
4	4.76	4.62	-99.99	-99.99	-99.99	-99.99	4.70	3.680E+03	1.808E+03	2.04
5	5.37	5.53	-99.99	-99.99	-99.99	-99.99	5.45	3.676E+03	1.386E+03	2.65

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.95	9.51	1.38	2.20	2.15	7.29	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.20	3.22	-99.99	-99.99	-99.99	-99.99	3.21	1.776E+03	1.836E+03	.97
2	3.51	3.48	-99.99	-99.99	-99.99	-99.99	3.49	1.819E+03	1.621E+03	1.12
3	4.00	3.85	-99.99	-99.99	-99.99	-99.99	3.93	1.795E+03	1.260E+03	1.42
4	4.61	4.52	-99.99	-99.99	-99.99	-99.99	4.56	1.781E+03	9.207E+02	1.93
5	4.61	4.78	-99.99	-99.99	-99.99	-99.99	4.70	1.781E+03	9.187E+02	1.94

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.96	9.59	1.38	2.21	2.14	7.32	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.21	3.22	-99.99	-99.99	-99.99	-99.99	3.22	1.775E+03	1.822E+03	.97
2	3.52	3.48	-99.99	-99.99	-99.99	-99.99	3.50	1.817E+03	1.610E+03	1.13
3	4.00	3.86	-99.99	-99.99	-99.99	-99.99	3.93	1.794E+03	1.258E+03	1.43
4	4.63	4.54	-99.99	-99.99	-99.99	-99.99	4.59	1.781E+03	9.100E+02	1.96
5	4.67	4.81	-99.99	-99.99	-99.99	-99.99	4.74	1.779E+03	8.981E+02	1.98

NOTE 20 X-Y pairs were stored in plot data file PDFND102

Dist number = 18  
 File name: DFND103  
 This data set taken on : 05:02:20-13:47

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.75	6.59	1.53	2.24	2.23	5.62	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.82	8.92-99.99-99.99-99.99-99.99	8.87	8.92E+04	1.500E+04	5.95				
2	11.12	11.46-99.99-99.99-99.99-99.99	11.29	8.936E+04	1.085E+04	8.23				
3	11.69	11.86-99.99-99.99-99.99-99.99	11.77	8.850E+04	1.030E+04	8.59				
4	10.77	10.43-99.99-99.99-99.99-99.99	10.60	8.797E+04	1.205E+04	7.30				
5	9.96	13.92-99.99-99.99-99.99-99.99	11.94	8.809E+04	1.036E+04	8.50				

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.58	6.50	1.55	2.26	2.25	5.54	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.77	8.97-99.99-99.99-99.99-99.99	8.87	9.070E+04	1.533E+04	5.92				
2	11.13	11.66-99.99-99.99-99.99-99.99	11.39	9.085E+04	1.094E+04	8.31				
3	11.91	12.02-99.99-99.99-99.99-99.99	11.91	9.001E+04	1.034E+04	8.70				
4	10.94	10.64-99.99-99.99-99.99-99.99	10.79	8.941E+04	1.199E+04	7.46				
5	10.02	14.10-99.99-99.99-99.99-99.99	12.06	8.950E+04	1.041E+04	8.60				

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.06	6.52	1.58	2.30	2.28	5.39	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.02	8.18-99.99-99.99-99.99-99.99	8.10	7.299E+04	1.395E+04	5.23				
2	9.74	10.07-99.99-99.99-99.99-99.99	9.90	7.312E+04	1.059E+04	6.91				
3	10.15	10.43-99.99-99.99-99.99-99.99	10.29	7.243E+04	1.010E+04	7.17				
4	9.81	9.56-99.99-99.99-99.99-99.99	9.69	7.195E+04	1.117E+04	6.44				
5	9.14	12.37-99.99-99.99-99.99-99.99	10.76	7.203E+04	9.759E+03	7.26				

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.03	6.51	1.59	2.30	2.29	5.39	2.30

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.02	8.18-99.99-99.99-99.99-99.99	8.10	7.286E+04	1.393E+04	5.23				
2	9.78	10.06-99.99-99.99-99.99-99.99	9.92	7.300E+04	1.056E+04	6.91				
3	10.18	10.43-99.99-99.99-99.99-99.99	10.31	7.234E+04	1.027E+04	7.18				
4	9.78	9.53-99.99-99.99-99.99-99.99	9.65	7.186E+04	1.123E+04	6.40				
5	9.16	12.36-99.99-99.99-99.99-99.99	10.77	7.191E+04	9.737E+03	7.39				

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.56	6.94	1.44	2.11	2.10	5.65	2.11

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.30	6.55	99.99	99.99	99.99	99.99	6.43	4.920E+04	1.258E+04	3.91
2	7.42	7.70	99.99	99.99	99.99	99.99	7.56	4.933E+04	1.004E+04	4.91
3	7.72	8.05	99.99	99.99	99.99	99.99	7.88	4.888E+04	9.556E+03	5.11
4	7.96	7.78	99.99	99.99	99.99	99.99	7.87	4.851E+04	9.744E+03	4.98
5	7.78	10.03	99.99	99.99	99.99	99.99	8.91	4.854E+04	8.254E+03	5.88

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.59	6.97	1.44	2.11	2.10	5.66	2.10

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.27	6.54	99.99	99.99	99.99	99.99	6.41	4.944E+04	1.269E+04	3.90
2	7.46	7.74	99.99	99.99	99.99	99.99	7.60	4.957E+04	9.995E+03	4.96
3	7.75	8.09	99.99	99.99	99.99	99.99	7.92	4.909E+04	9.534E+03	5.15
4	8.01	7.84	99.99	99.99	99.99	99.99	7.92	4.872E+04	9.688E+03	5.03
5	7.77	10.06	99.99	99.99	99.99	99.99	8.92	4.876E+04	8.272E+03	5.89

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.49	6.21	1.55	2.11	2.10	6.42	2.11

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.37	5.37	99.99	99.99	99.99	99.99	5.37	3.288E+04	1.106E+04	2.97
2	6.23	6.44	99.99	99.99	99.99	99.99	6.33	3.299E+04	8.672E+03	3.80
3	6.66	6.82	99.99	99.99	99.99	99.99	6.74	3.270E+04	8.003E+03	4.09
4	7.11	7.00	99.99	99.99	99.99	99.99	7.05	3.248E+04	7.608E+03	4.27
5	7.06	6.59	99.99	99.99	99.99	99.99	7.03	3.245E+04	6.604E+03	4.91

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.57	8.27	1.53	2.10	2.09	6.46	2.09

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.30	5.35	99.99	99.99	99.99	99.99	5.32	3.291E+04	1.120E+04	2.94
2	6.24	6.44	99.99	99.99	99.99	99.99	6.34	3.303E+04	8.634E+03	3.83
3	6.67	6.83	99.99	99.99	99.99	99.99	6.75	3.273E+04	7.965E+03	4.11
4	7.09	6.98	99.99	99.99	99.99	99.99	7.04	3.251E+04	7.617E+03	4.27
5	7.04	6.61	99.99	99.99	99.99	99.99	7.03	3.247E+04	6.585E+03	4.93

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.90	7.77	1.55	2.13	2.13	6.41	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.80	4.71	99.99	99.99	99.99	99.99	4.76	2.024E+04	8.345E+03	2.43
2	5.46	5.54	99.99	99.99	99.99	99.99	5.50	2.036E+04	6.694E+03	3.04
3	5.94	5.91	99.99	99.99	99.99	99.99	5.93	2.017E+04	6.042E+03	3.34
4	6.35	6.25	99.99	99.99	99.99	99.99	6.30	2.002E+04	5.581E+03	3.59
5	6.58	7.45	99.99	99.99	99.99	99.99	7.02	1.999E+04	4.794E+03	4.17

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.90	7.72	1.55	2.13	2.12	6.39	2.13			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.77	4.70	99.99	99.99	99.99	99.99	4.74	2.030E+04	8.433E+03	2.41
2	5.45	5.54	99.99	99.99	99.99	99.99	5.49	2.042E+04	6.725E+03	3.04
3	5.95	5.90	99.99	99.99	99.99	99.99	5.93	2.022E+04	6.052E+03	3.34
4	6.35	6.27	99.99	99.99	99.99	99.99	6.31	2.007E+04	5.577E+03	3.60
5	6.57	7.45	99.99	99.99	99.99	99.99	7.01	2.006E+04	4.811E+03	4.17

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.35	7.42	1.51	2.12	2.11	6.09	2.12			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.27	4.21	99.99	99.99	99.99	99.99	4.24	1.305E+04	6.615E+03	1.97
2	4.88	4.80	99.99	99.99	99.99	99.99	4.88	1.315E+04	5.297E+03	2.48
3	5.21	5.22	99.99	99.99	99.99	99.99	5.26	1.302E+04	4.755E+03	2.74
4	5.70	5.65	99.99	99.99	99.99	99.99	5.68	1.292E+04	4.270E+03	3.03
5	5.96	6.48	99.99	99.99	99.99	99.99	6.22	1.290E+04	3.753E+03	3.44

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.32	7.40	1.51	2.13	2.12	6.09	2.12			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	4.29	4.22	99.99	99.99	99.99	99.99	4.26	1.305E+04	6.572E+03	1.99
2	4.89	4.89	99.99	99.99	99.99	99.99	4.89	1.316E+04	5.295E+03	2.49
3	5.32	5.23	99.99	99.99	99.99	99.99	5.27	1.303E+04	4.747E+03	2.74
4	5.72	5.65	99.99	99.99	99.99	99.99	5.69	1.293E+04	4.272E+03	3.03
5	5.98	6.51	99.99	99.99	99.99	99.99	6.25	1.292E+04	3.730E+03	3.46

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.09	7.65	1.55	2.19	2.20	6.10	2.19			
Tube #	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	3.95	3.89	99.99	99.99	99.99	99.99	3.92	8.502E+03	5.277E+03	1.61
2	4.48	4.47	99.99	99.99	99.99	99.99	4.46	8.590E+03	4.264E+03	2.01
3	4.92	4.76	99.99	99.99	99.99	99.99	4.84	8.507E+03	3.743E+03	2.27
4	5.17	5.10	99.99	99.99	99.99	99.99	5.13	8.444E+03	3.465E+03	2.44
5	5.35	5.60	99.99	99.99	99.99	99.99	5.52	8.430E+03	3.132E+03	2.69

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tva.	Tldv			
	9.07	7.67	1.54	2.19	2.20	6.09	2.19			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	3.95	3.90	99.99	99.99	99.99	99.99	3.92	8.509E+03	5.273E+03	1.61
2	4.47	4.43	99.99	99.99	99.99	99.99	4.45	8.595E+03	4.273E+03	2.01
3	4.91	4.77	99.99	99.99	99.99	99.99	4.84	8.511E+03	3.744E+03	2.27
4	5.17	5.08	99.99	99.99	99.99	99.99	5.12	8.448E+03	3.477E+03	2.43
5	5.42	5.74	99.99	99.99	99.99	99.99	5.56	8.437E+03	3.062E+03	2.76

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.19	7.85	1.55	2.24	2.26	6.20	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	3.71 3.69-99.99-99.99-99.99-99.99	3.70	5.778E+03	4.264E+03	1.35
2	4.19 4.12-99.99-99.99-99.99-99.99	4.16	5.857E+03	3.477E+03	1.68
3	4.49 4.35-99.99-99.99-99.99-99.99	4.42	5.790E+03	3.184E+03	1.82
4	4.72 4.63-99.99-99.99-99.99-99.99	4.67	5.746E+03	2.959E+03	1.94
5	4.89 5.10-99.99-99.99-99.99-99.99	5.00	5.742E+03	2.688E+03	2.14

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.24	7.85	1.55	2.24	2.25	6.21	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	3.71 3.69-99.99-99.99-99.99-99.99	3.70	5.783E+03	4.258E+03	1.36
2	4.19 4.12-99.99-99.99-99.99-99.99	4.16	5.859E+03	3.477E+03	1.69
3	4.49 4.34-99.99-99.99-99.99-99.99	4.41	5.800E+03	3.202E+03	1.81
4	4.71 4.62-99.99-99.99-99.99-99.99	4.66	5.752E+03	2.977E+03	1.93
5	4.87 5.08-99.99-99.99-99.99-99.99	4.97	5.746E+03	2.715E+03	2.12

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.62	7.97	1.47	2.22	2.19	6.35	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	3.43 3.41-99.99-99.99-99.99-99.99	3.42	3.809E+03	3.358E+03	1.13
2	3.92 3.76-99.99-99.99-99.99-99.99	3.80	3.872E+03	2.806E+03	1.38
3	4.09 3.92-99.99-99.99-99.99-99.99	4.00	3.826E+03	2.620E+03	1.46
4	4.32 4.18-99.99-99.99-99.99-99.99	4.25	3.800E+03	2.411E+03	1.58
5	4.45 4.55-99.99-99.99-99.99-99.99	4.50	3.794E+03	2.232E+03	1.70

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.66	7.95	1.46	2.23	2.20	6.37	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	3.43 3.42-99.99-99.99-99.99-99.99	3.43	3.805E+03	3.377E+03	1.13
2	3.84 3.78-99.99-99.99-99.99-99.99	3.81	3.855E+03	2.795E+03	1.38
3	4.10 3.92-99.99-99.99-99.99-99.99	4.01	3.825E+03	2.642E+03	1.45
4	4.30 4.17-99.99-99.99-99.99-99.99	4.24	3.795E+03	2.451E+03	1.55
5	4.43 4.55-99.99-99.99-99.99-99.99	4.49	3.788E+03	2.259E+03	1.68

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.19	8.18	1.48	2.25	2.17	6.62	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	3.23 3.14-99.99-99.99-99.99-99.99	3.18	1.798E+03	1.990E+03	1.90
2	3.52 3.41-99.99-99.99-99.99-99.99	3.47	1.842E+03	1.729E+03	1.07
3	3.78 3.58-99.99-99.99-99.99-99.99	3.68	1.817E+03	1.590E+03	1.14
4	3.99 3.87-99.99-99.99-99.99-99.99	3.93	1.804E+03	1.430E+03	1.26
5	3.97 4.05-99.99-99.99-99.99-99.99	4.03	1.803E+03	1.463E+03	1.23

Data Set Number = 20

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.27	8.23	1.49	2.26	2.20	6.66	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.25	3.17	99.99	99.99	99.99	99.99	3.21	1.810E+03	1.990E+03	.91
2	3.55	3.44	99.99	99.99	99.99	99.99	3.49	1.852E+03	1.741E+03	1.06
3	3.77	3.59	99.99	99.99	99.99	99.99	3.68	1.830E+03	1.628E+03	1.12
4	4.02	3.88	99.99	99.99	99.99	99.99	3.95	1.817E+03	1.436E+03	1.27
5	4.01	4.11	99.99	99.99	99.99	99.99	4.06	1.812E+03	1.454E+03	1.25

NOTE 20 X-Y pairs were stored in plot data file PDFND103

Dist number = 19  
File name DFND103  
This data set taken on : 05 03:19:07.24

Data Set Number = 1

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.32	9.18	1.46	2.16	2.16	7.34	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	10.66	10.52	99.99	99.99	99.99	99.99	10.60	9.842E+04	1.280E+04	7.69

Data Set Number = 2

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
11.31	9.13	1.47	2.16	2.16	7.30	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	10.75	10.67	99.99	99.99	99.99	99.99	10.71	9.837E+04	1.263E+04	7.79

Data Set Number = 3

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.69	8.97	1.42	2.13	2.12	7.29	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.23	9.22	99.99	99.99	99.99	99.99	9.27	7.338E+04	1.118E+04	6.56

Data Set Number = 4

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.60	8.97	1.40	2.15	2.13	7.07	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.24	9.40	99.99	99.99	99.99	99.99	9.30	7.225E+04	1.118E+04	6.60

Data Set Number = 5

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.62	9.02	1.48	2.16	2.16	7.03	2.16

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	8.23	8.48	99.99	99.99	99.99	99.99	8.41	5.165E+04	8.902E+03	5.82

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	10.61	9.01	1.46	2.17	2.16	7.03	2.16	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	8.34	8.48	-99.99	-99.99	-99.99	-99.99	8.41	5.188E+04
								8.914E+03
								5.82

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	10.65	9.05	1.46	2.19	2.18	7.05	2.19	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	7.43	7.67	-99.99	-99.99	-99.99	-99.99	7.55	3.443E+04
								6.805E+03
								5.06

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	10.68	9.04	1.46	2.19	2.19	7.06	2.19	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	7.47	7.66	-99.99	-99.99	-99.99	-99.99	7.57	3.435E+04
								6.766E+03
								5.08

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.17	9.30	1.47	2.23	2.22	7.31	2.23	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.76	6.86	-99.99	-99.99	-99.99	-99.99	6.81	2.167E+04
								4.954E+03
								4.37

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.00	9.34	1.47	2.23	2.22	7.34	2.23	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.75	6.88	-99.99	-99.99	-99.99	-99.99	6.82	2.169E+04
								4.956E+03
								4.38

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.50	9.08	1.47	2.24	2.22	7.60	2.23	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.16	6.22	-99.99	-99.99	-99.99	-99.99	6.19	1.325E+04
								3.501E+03
								3.81

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	11.53	9.97	1.44	2.24	2.21	7.65	2.22	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.20	6.26	-99.99	-99.99	-99.99	-99.99	6.23	1.325E+04
								3.466E+03
								3.85

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.76	10.59	1.42	2.23	2.23	7.92	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.74	5.80-99.99-99.99-99.99-99.99-99.99					5.77	8.804E+03	2.571E+03	3.42

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.79	10.64	1.43	2.24	2.22	7.95	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.78	5.61-99.99-99.99-99.99-99.99-99.99					5.79	8.793E+03	2.555E+03	3.44

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.93	10.97	1.33	2.20	2.20	8.09	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.32	5.35-99.99-99.99-99.99-99.99-99.99					5.34	5.639E+03	1.855E+03	3.04

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.93	10.99	1.37	2.20	2.20	8.08	2.20

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.32	5.34-99.99-99.99-99.99-99.99-99.99					5.33	5.631E+03	1.852E+03	3.04

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.05	11.27	1.35	2.31	2.29	8.22	2.30

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.01	4.99-99.99-99.99-99.99-99.99-99.99					5.00	3.167E+03	1.217E+03	2.60

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.05	11.24	1.38	2.30	2.28	8.23	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.01	5.02-99.99-99.99-99.99-99.99-99.99					5.02	3.189E+03	1.205E+03	2.65

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.11	11.31	1.38	2.30	2.30	8.27	2.30

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.69	4.66-99.99-99.99-99.99-99.99-99.99					4.66	1.497E+03	6.472E+02	2.31

Data Set Number = 20

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	12.12	11.33	1.41	2.31	2.31	8.28	2.31	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.72	4.69	99.99	99.99	99.99	99.99	4.71	1.494E+03	6.408E+02	2.33

NOTE: 20 X-Y pairs were stored in plot data file PDFND103

Dist number = 19

File name DFND104

This data set taken on : 05-03-17-57:48

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	10.01	7.60	1.48	2.23	2.24	6.39	2.23	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.87	9.73	99.99	99.99	99.99	99.99	9.80	9.743E+04	1.430E+04	6.81
2	13.14	13.80	99.99	99.99	99.99	99.99	13.47	9.750E+04	9.418E+03	10.35

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	10.00	7.60	1.46	2.23	2.23	6.38	2.23	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.87	9.64	99.99	99.99	99.99	99.99	9.76	9.738E+04	1.437E+04	6.78
2	13.16	13.77	99.99	99.99	99.99	99.99	13.46	9.746E+04	9.412E+03	10.35

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	9.80	7.65	1.44	2.18	2.20	6.30	2.19	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.65	8.54	99.99	99.99	99.99	99.99	8.59	7.983E+04	1.381E+04	5.78
2	11.54	12.03	99.99	99.99	99.99	99.99	11.79	7.986E+04	9.029E+03	8.84

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	9.77	7.64	1.43	2.18	2.18	6.28	2.18	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.66	6.67	99.99	99.99	99.99	99.99	8.66	7.985E+04	1.363E+04	5.86
2	11.54	12.03	99.99	99.99	99.99	99.99	11.79	7.991E+04	9.031E+03	8.85

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	9.73	7.93	1.40	2.14	2.16	6.35	2.15	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.46	7.48	99.99	99.99	99.99	99.99	7.47	5.631E+04	1.157E+04	4.87
2	9.90	10.15	99.99	99.99	99.99	99.99	10.03	5.637E+04	7.731E+03	7.29

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.72	7.96	1.40	2.14	2.16	6.36	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	7.46	7.51	99.99	99.99	99.99	99.99	7.49	5.634E+04	1.154E+04	4.88
2	9.93	10.20	99.99	99.99	99.99	99.99	10.07	5.640E+04	7.696E+03	7.33

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.83	8.09	1.54	2.29	2.31	6.49	2.30			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.77	6.86	99.99	99.99	99.99	99.99	6.81	3.740E+04	8.925E+03	4.19
2	8.79	8.90	99.99	99.99	99.99	99.99	8.84	3.746E+04	6.154E+03	6.09

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.84	8.09	1.54	2.29	2.30	6.49	2.29			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Theteb
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.77	6.83	99.99	99.99	99.99	99.99	6.80	3.737E+04	8.928E+03	4.19
2	8.60	8.68	99.99	99.99	99.99	99.99	8.64	3.745E+04	6.142E+03	6.10

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.86	8.19	1.47	2.21	2.22	6.50	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.05	6.16	99.99	99.99	99.99	99.99	6.11	2.386E+04	6.506E+03	3.67
2	7.70	7.70	99.99	99.99	99.99	99.99	7.70	2.393E+04	4.668E+03	5.13

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.86	8.20	1.46	2.21	2.21	6.51	2.21			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	6.05	6.14	99.99	99.99	99.99	99.99	6.10	2.388E+04	6.524E+03	3.66
2	7.72	7.70	99.99	99.99	99.99	99.99	7.71	2.395E+04	4.655E+03	5.15

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.01	8.36	1.36	2.14	2.15	6.57	2.15			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.37	5.42	99.99	99.99	99.99	99.99	5.40	1.479E+04	4.792E+03	3.09
2	6.61	6.77	99.99	99.99	99.99	99.99	6.79	1.487E+04	3.418E+03	4.35

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.06	8.36	1.35	2.14	2.15	6.59	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	5.35	5.44-99.99-99.99-99.99-99.99	5.39	1.480E+04	4.796E+03	3.09
2	6.79	6.76-99.99-99.99-99.99-99.99	6.78	1.487E+04	3.429E+03	4.34

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.65	8.63	1.36	2.18	2.18	6.88	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.90	4.93-99.99-99.99-99.99-99.99	4.91	1.027E+04	3.945E+03	2.60
2	6.33	6.26-99.99-99.99-99.99-99.99	6.30	1.034E+04	2.680E+03	3.86

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.70	8.68	1.36	2.18	2.18	6.91	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.89	4.96-99.99-99.99-99.99-99.99	4.92	1.028E+04	3.933E+03	2.61
2	6.35	6.28-99.99-99.99-99.99-99.99	6.31	1.035E+04	2.671E+03	3.88

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.16	9.70	1.42	2.24	2.25	7.44	2.24

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.56	4.64-99.99-99.99-99.99-99.99	4.61	6.867E+03	3.037E+03	2.26
2	6.01	5.91-99.99-99.99-99.99-99.99	5.96	6.928E+03	1.991E+03	3.48

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.23	9.81	1.44	2.26	2.27	7.50	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.62	4.67-99.99-99.99-99.99-99.99	4.65	6.864E+03	3.014E+03	2.26
2	6.03	5.92-99.99-99.99-99.99-99.99	5.97	6.926E+03	1.993E+03	3.47

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.46	10.35	1.43	2.29	2.27	7.75	2.28

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.00	4.02-99.99-99.99-99.99-99.99	4.01	4.046E+03	2.457E+03	1.65
2	5.46	5.30-99.99-99.99-99.99-99.99	5.38	4.094E+03	1.421E+03	2.88

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	11.49	10.40	1.41	2.28	2.27	7.77	2.28

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.04	4.03	-99.99	-99.99	-99.99	-99.99	4.03	4.039E+03	2.417E+03	1.67
2	5.46	5.31	-99.99	-99.99	-99.99	-99.99	5.39	4.090E+03	1.414E+03	2.89

Data Set Number = 19

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	11.63	10.70	1.33	2.29	2.26	7.89	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.53	3.51	-99.99	-99.99	-99.99	-99.99	3.52	1.979E+03	1.676E+03	1.18
2	4.94	4.81	-99.99	-99.99	-99.99	-99.99	4.88	2.015E+03	8.387E+02	2.40

Data Set Number = 20

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	11.63	10.71	1.34	2.28	2.26	7.90	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.55	3.53	-99.99	-99.99	-99.99	-99.99	3.54	1.979E+03	1.649E+03	1.20
2	4.94	4.83	-99.99	-99.99	-99.99	-99.99	4.89	2.013E+03	8.327E+02	2.42

NOTE 20 Y-Y pairs were stored in plot data file PDFND104

Expt number = 19

File name DFND105

This data set taken on 05 03 16:57:31

Data Set Number = 1

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	10.62	8.10	1.39	2.17	2.16	6.67	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.57	9.55	-99.99	-99.99	-99.99	-99.99	9.56	9.759E+04	1.472E+04	6.63
2	12.33	12.71	-99.99	-99.99	-99.99	-99.99	12.52	9.770E+04	1.033E+04	9.46
3	13.45	14.12	-99.99	-99.99	-99.99	-99.99	13.76	9.688E+04	9.138E+03	10.60

Data Set Number = 2

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	10.47	8.05	1.39	2.17	2.18	6.64	2.17

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.74	9.85	-99.99	-99.99	-99.99	-99.99	9.80	9.769E+04	1.422E+04	6.87
2	12.32	12.75	-99.99	-99.99	-99.99	-99.99	12.54	9.778E+04	1.031E+04	9.48
3	13.47	14.17	-99.99	-99.99	-99.99	-99.99	13.76	9.694E+04	9.145E+03	10.60

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.59	7.52	1.51	2.27	2.30	6.21	2.29

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	8.23	8.14-99.99-99.99-99.99-99.99	8.18	7.659E+04	1.446E+04	5.30
2	10.73	10.97-99.99-99.99-99.99-99.99	10.85	7.666E+04	9.787E+03	7.83
3	11.87	12.41-99.99-99.99-99.99-99.99	12.14	7.598E+04	8.443E+03	9.00

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.55	7.52	1.52	2.30	2.31	6.20	2.31

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	8.27	8.15-99.99-99.99-99.99-99.99	8.21	7.619E+04	1.437E+04	5.30
2	10.78	11.00-99.99-99.99-99.99-99.99	10.89	7.624E+04	9.708E+03	7.85
3	11.89	12.46-99.99-99.99-99.99-99.99	12.17	7.560E+04	8.390E+03	9.01

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.07	7.61	1.31	2.06	2.10	6.00	2.09

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	6.94	7.00-99.99-99.99-99.99-99.99	6.97	5.371E+04	1.210E+04	4.44
2	8.98	9.13-99.99-99.99-99.99-99.99	9.06	5.377E+04	8.403E+03	6.40
3	10.24	10.50-99.99-99.99-99.99-99.99	10.37	5.332E+04	7.029E+03	7.59

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.05	7.60	1.30	2.06	2.10	5.99	2.09

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	6.93	6.97-99.99-99.99-99.99-99.99	6.95	5.377E+04	1.216E+04	4.42
2	8.96	9.13-99.99-99.99-99.99-99.99	9.05	5.384E+04	8.431E+03	6.39
3	10.28	10.47-99.99-99.99-99.99-99.99	10.37	5.340E+04	7.036E+03	7.59

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.17	7.60	1.44	2.21	2.24	6.07	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	6.28	6.29-99.99-99.99-99.99-99.99	6.34	3.465E+04	9.096E+03	3.81
2	7.76	7.96-99.99-99.99-99.99-99.99	7.87	3.472E+04	6.662E+03	5.21
3	9.08	9.24-99.99-99.99-99.99-99.99	9.16	3.445E+04	5.401E+03	6.38

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.18	7.60	1.43	2.21	2.22	6.07	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	6.28	6.40-99.99-99.99-99.99-99.99	6.33	3.466E+04	9.087E+03	3.81
2	7.76	7.97-99.99-99.99-99.99-99.99	7.87	3.476E+04	6.656E+03	5.22
3	9.08	9.18-99.99-99.99-99.99-99.99	9.13	3.448E+04	5.429E+03	6.35

Data Set Number = 9

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.24	7.75	1.37	2.16	2.19	6.12	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.70	5.82	-99.99	-99.99	-99.99	-99.99	5.76	2.243E+04	6.654E+03	3.37
2	6.94	7.08	-99.99	-99.99	-99.99	-99.99	7.01	2.251E+04	5.012E+03	4.49
3	8.04	8.09	-99.99	-99.99	-99.99	-99.99	8.06	2.235E+04	4.130E+03	5.41

Data Set Number = 10

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.25	7.78	1.37	2.16	2.18	6.14	2.17

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.71	5.84	-99.99	-99.99	-99.99	-99.99	5.78	2.245E+04	6.634E+03	3.38
2	6.93	7.04	-99.99	-99.99	-99.99	-99.99	6.99	2.253E+04	5.047E+03	4.46
3	8.03	8.07	-99.99	-99.99	-99.99	-99.99	8.05	2.237E+04	4.143E+03	5.40

Data Set Number = 11

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.57	7.98	1.36	2.18	2.20	6.31	2.19

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.17	5.23	-99.99	-99.99	-99.99	-99.99	5.20	1.382E+04	4.844E+03	2.85
2	6.13	6.14	-99.99	-99.99	-99.99	-99.99	6.14	1.369E+04	3.797E+03	3.66
3	7.09	7.15	-99.99	-99.99	-99.99	-99.99	7.12	1.380E+04	3.058E+03	4.51

Data Set Number = 12

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
9.63	7.98	1.35	2.17	2.19	6.32	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.17	5.19	-99.99	-99.99	-99.99	-99.99	5.18	1.363E+04	4.862E+03	2.84
2	6.13	6.14	-99.99	-99.99	-99.99	-99.99	6.13	1.390E+04	3.790E+03	3.67
3	7.09	7.12	-99.99	-99.99	-99.99	-99.99	7.11	1.381E+04	3.059E+03	4.51

Data Set Number = 13

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.30	6.12	1.09	2.17	2.14	6.57	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.67	4.71	-99.99	-99.99	-99.99	-99.99	4.69	9.215E+03	3.786E+03	2.43
2	5.78	5.77	-99.99	-99.99	-99.99	-99.99	5.78	9.263E+03	3.100E+03	2.99
3	6.39	6.45	-99.99	-99.99	-99.99	-99.99	6.42	9.225E+03	2.361E+03	3.91

Data Set Number = 14

Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav
10.37	6.14	1.09	2.12	2.12	6.60	2.13

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.68	4.71	-99.99	-99.99	-99.99	-99.99	4.69	9.192E+03	3.761E+03	2.44
2	5.78	5.76	-99.99	-99.99	-99.99	-99.99	5.77	9.262E+03	3.096E+03	2.99
3	6.38	6.45	-99.99	-99.99	-99.99	-99.99	6.42	9.208E+03	2.357E+03	3.91

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.87	8.69	1.27	2.14	2.16	6.95	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	4.37	4.39-99.99-99.99-99.99-99.99	4.38	6.255E+03	2.941E+03	2.13
2	4.02	4.00-99.99-99.99-99.99-99.99	4.01	6.316E+03	2.596E+03	2.43
3	5.07	5.91-99.99-99.99-99.99-99.99	5.09	6.281E+03	1.856E+03	3.38

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.91	8.06	1.27	2.16	2.17	7.01	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	4.39	4.41-99.99-99.99-99.99-99.99	4.40	6.304E+03	2.957E+03	2.13
2	4.02	4.00-99.99-99.99-99.99-99.99	4.01	6.363E+03	2.635E+03	2.42
3	5.09	5.95-99.99-99.99-99.99-99.99	5.92	6.329E+03	1.864E+03	3.39

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.26	10.05	1.26	2.21	2.20	7.53	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.85	3.87-99.99-99.99-99.99-99.99	3.86	3.499E+03	2.221E+03	1.58
2	4.15	4.15-99.99-99.99-99.99-99.99	4.15	3.547E+03	2.043E+03	1.74
3	5.26	5.32-99.99-99.99-99.99-99.99	5.29	3.532E+03	1.285E+03	2.75

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.26	10.10	1.27	2.20	2.20	7.54	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.84	3.87-99.99-99.99-99.99-99.99	3.85	3.506E+03	2.231E+03	1.57
2	4.15	4.15-99.99-99.99-99.99-99.99	4.15	3.552E+03	2.044E+03	1.74
3	5.26	5.31-99.99-99.99-99.99-99.99	5.29	3.537E+03	1.288E+03	2.75

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.39	10.30	1.21	2.18	2.18	7.66	2.18

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.33	3.31-99.99-99.99-99.99-99.99	3.32	1.569E+03	1.460E+03	1.07
2	3.72	3.72-99.99-99.99-99.99-99.99	3.72	1.602E+03	1.188E+03	1.35
3	4.56	4.63-99.99-99.99-99.99-99.99	4.59	1.594E+03	7.622E+02	2.09

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
11.40	10.40	1.23	2.16	2.19	7.60	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.36	3.33-99.99-99.99-99.99-99.99	3.34	1.565E+03	1.421E+03	1.10
2	3.75	3.75-99.99-99.99-99.99-99.99	3.75	1.597E+03	1.153E+03	1.39
3	4.59	4.65-99.99-99.99-99.99-99.99	4.62	1.591E+03	7.501E+02	2.12

NOTE: 20 X-Y pairs were stored in plot data file PDFND105

Dist number = 19  
File name DFND105  
This data set taken on 05-03-15-54-40

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.80	6.94	1.30	2.12	2.11	6.01	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	9.38	9.45-99.99-99.99-99.99-99.99	9.41	9.582E+04	1.461E+04	6.56
2	11.78	12.15-99.99-99.99-99.99-99.99	11.96	9.590E+04	1.068E+04	8.98
3	12.70	13.21-99.99-99.99-99.99-99.99	12.95	9.505E+04	9.653E+03	9.05
4	12.81	12.38-99.99-99.99-99.99-99.99	12.59	9.452E+04	1.010E+04	9.36

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.78	6.89	1.30	2.12	2.10	5.99	2.11

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	9.56	9.62-99.99-99.99-99.99-99.99	9.59	9.659E+04	1.434E+04	6.73
2	11.85	12.19-99.99-99.99-99.99-99.99	12.02	9.668E+04	1.071E+04	9.03
3	12.73	13.24-99.99-99.99-99.99-99.99	12.99	9.587E+04	9.707E+03	9.08
4	12.82	12.44-99.99-99.99-99.99-99.99	12.63	9.528E+04	1.014E+04	9.39

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.56	6.56	1.36	2.16	2.16	5.83	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	7.69	7.81-99.99-99.99-99.99-99.99	7.75	7.377E+04	1.474E+04	5.00
2	9.78	10.17-99.99-99.99-99.99-99.99	9.97	7.381E+04	1.040E+04	7.10
3	10.83	11.51-99.99-99.99-99.99-99.99	11.17	7.322E+04	8.960E+03	8.17
4	11.18	10.68-99.99-99.99-99.99-99.99	11.05	7.275E+04	8.200E+03	7.91

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.54	6.53	1.36	2.17	2.16	5.81	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	7.70	7.81-99.99-99.99-99.99-99.99	7.75	7.382E+04	1.474E+04	5.01
2	9.77	10.16-99.99-99.99-99.99-99.99	9.96	7.390E+04	1.042E+04	7.09
3	10.82	11.51-99.99-99.99-99.99-99.99	11.16	7.328E+04	8.975E+03	8.16
4	11.14	10.97-99.99-99.99-99.99-99.99	11.06	7.281E+04	9.177E+03	7.93

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.92	6.59	1.36	2.15	2.17	5.62	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	6.61	6.76-99.99-99.99-99.99-99.99	6.69	5.138E+04	1.253E+04	4.10
2	8.37	6.59-99.99-99.99-99.99-99.99	8.48	5.146E+04	8.925E+03	5.77
3	9.36	9.89-99.99-99.99-99.99-99.99	9.63	5.101E+04	7.515E+03	6.79
4	9.75	9.75-99.99-99.99-99.99-99.99	9.75	5.069E+04	7.474E+03	6.78

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.89	6.61	1.37	2.16	2.17	5.62	2.16

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	6.63	6.74	99.99	99.99	99.99	99.99	6.69	5.153E+04	1.257E+04	4.10
2	8.39	8.61	99.99	99.99	99.99	99.99	8.50	5.161E+04	8.925E+03	5.78
3	9.33	9.87	99.99	99.99	99.99	99.99	9.60	5.120E+04	7.576E+03	6.76
4	9.73	9.77	99.99	99.99	99.99	99.99	9.75	5.085E+04	7.502E+03	6.78

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.65	6.94	1.33	2.13	2.13	5.64	2.13

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.91	6.03	99.99	99.99	99.99	99.99	5.97	3.381E+04	9.540E+03	3.54
2	7.32	7.45	99.99	99.99	99.99	99.99	7.39	3.389E+04	7.022E+03	4.83
3	8.13	8.39	99.99	99.99	99.99	99.99	8.26	3.362E+04	6.035E+03	5.57
4	8.53	8.57	99.99	99.99	99.99	99.99	8.55	3.337E+04	5.820E+03	5.73

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.64	6.99	1.34	2.13	2.15	5.65	2.14

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.92	6.02	99.99	99.99	99.99	99.99	5.97	3.380E+04	9.563E+03	3.53
2	7.23	7.47	99.99	99.99	99.99	99.99	7.40	3.387E+04	7.013E+03	4.83
3	8.14	8.40	99.99	99.99	99.99	99.99	8.27	3.360E+04	6.028E+03	5.57
4	8.51	8.60	99.99	99.99	99.99	99.99	8.55	3.337E+04	5.823E+03	5.73

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.72	7.20	1.39	2.20	2.22	5.77	2.21

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.56	5.62	99.99	99.99	99.99	99.99	5.59	2.116E+04	6.669E+03	3.17
2	6.65	6.75	99.99	99.99	99.99	99.99	6.70	2.124E+04	5.109E+03	4.16
3	7.25	7.18	99.99	99.99	99.99	99.99	7.21	2.109E+04	4.646E+03	4.54
4	7.72	7.79	99.99	99.99	99.99	99.99	7.76	2.092E+04	4.223E+03	4.95

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
8.73	7.22	1.40	2.20	2.24	5.78	2.22

Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)	(K)	
1	5.57	5.62	99.99	99.99	99.99	99.99	5.59	2.117E+04	6.688E+03	3.16
2	6.64	6.78	99.99	99.99	99.99	99.99	6.71	2.125E+04	5.120E+03	4.15
3	7.26	7.21	99.99	99.99	99.99	99.99	7.23	2.109E+04	4.637E+03	4.55
4	7.66	7.81	99.99	99.99	99.99	99.99	7.74	2.093E+04	4.243E+03	4.93

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.92	7.33	1.30	2.14	2.17	5.85	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.05	5.06	-99.99	-99.99	-99.99	-99.99	5.06	1.373E+04	4.993E+03	2.75
2	5.96	5.98	-99.99	-99.99	-99.99	-99.99	5.97	1.381E+04	3.908E+03	3.53
3	6.24	6.06	-99.99	-99.99	-99.99	-99.99	6.15	1.372E+04	3.827E+03	3.59
4	6.94	7.09	-99.99	-99.99	-99.99	-99.99	7.02	1.361E+04	3.145E+03	4.33

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.96	7.33	1.30	2.12	2.16	5.87	2.14			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.05	5.07	-99.99	-99.99	-99.99	-99.99	5.06	1.377E+04	4.980E+03	2.77
2	5.95	5.95	-99.99	-99.99	-99.99	-99.99	5.95	1.385E+04	3.931E+03	3.52
3	6.23	6.07	-99.99	-99.99	-99.99	-99.99	6.15	1.375E+04	3.822E+03	3.60
4	6.94	7.09	-99.99	-99.99	-99.99	-99.99	7.02	1.363E+04	3.142E+03	4.34

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.41	7.50	1.29	2.15	2.17	6.07	2.16			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.57	4.58	-99.99	-99.99	-99.99	-99.99	4.58	8.495E+03	3.694E+03	2.30
2	5.20	5.19	-99.99	-99.99	-99.99	-99.99	5.19	8.562E+03	3.073E+03	2.79
3	5.33	5.22	-99.99	-99.99	-99.99	-99.99	5.27	8.512E+03	3.105E+03	2.74
4	6.32	6.52	-99.99	-99.99	-99.99	-99.99	6.42	8.433E+03	2.244E+03	3.76

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.47	7.52	1.30	2.14	2.16	6.10	2.15			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.56	4.58	-99.99	-99.99	-99.99	-99.99	4.57	8.473E+03	3.679E+03	2.30
2	5.20	5.20	-99.99	-99.99	-99.99	-99.99	5.20	8.541E+03	3.051E+03	2.80
3	5.35	5.26	-99.99	-99.99	-99.99	-99.99	5.31	8.497E+03	3.059E+03	2.78
4	6.35	6.54	-99.99	-99.99	-99.99	-99.99	6.44	8.415E+03	2.222E+03	3.79

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.20	8.01	1.28	2.21	2.23	6.49	2.22			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.19	4.25	-99.99	-99.99	-99.99	-99.99	4.22	5.599E+03	2.931E+03	1.91
2	4.61	4.60	-99.99	-99.99	-99.99	-99.99	4.60	5.660E+03	2.620E+03	2.16
3	4.76	4.69	-99.99	-99.99	-99.99	-99.99	4.72	5.630E+03	2.620E+03	2.15
4	5.82	6.05	-99.99	-99.99	-99.99	-99.99	5.94	5.570E+03	1.722E+03	3.24

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.27	8.13	1.26	2.19	2.22	6.55	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	4.18	4.17-99.99-99.99-99.99-99.99	4.18	5.595E+03	2.986E+03	1.87
2	4.59	4.56-99.99-99.99-99.99-99.99	4.58	5.655E+03	2.637E+03	2.14
3	4.73	4.64-99.99-99.99-99.99-99.99	4.68	5.625E+03	2.647E+03	2.13
4	5.80	6.01-99.99-99.99-99.99-99.99	5.91	5.566E+03	1.729E+03	3.22

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.64	9.25	1.16	2.15	2.15	7.02	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.64	3.65-99.99-99.99-99.99-99.99	3.64	3.087E+03	2.184E+03	1.41
2	3.91	3.91-99.99-99.99-99.99-99.99	3.91	3.131E+03	2.018E+03	1.55
3	4.25	4.16-99.99-99.99-99.99-99.99	4.21	3.118E+03	1.812E+03	1.72
4	5.23	5.43-99.99-99.99-99.99-99.99	5.33	3.083E+03	1.137E+03	2.71

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.67	9.32	1.17	2.16	2.15	7.05	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.66	3.65-99.99-99.99-99.99-99.99	3.65	3.097E+03	2.182E+03	1.42
2	3.92	3.91-99.99-99.99-99.99-99.99	3.92	3.142E+03	2.021E+03	1.55
3	4.26	4.17-99.99-99.99-99.99-99.99	4.22	3.128E+03	1.814E+03	1.72
4	5.24	5.44-99.99-99.99-99.99-99.99	5.34	3.093E+03	1.138E+03	2.72

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.90	9.80	1.23	2.17	2.16	7.31	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.36	3.37-99.99-99.99-99.99-99.99	3.37	1.570E+03	1.399E+03	1.13
2	3.71	3.72-99.99-99.99-99.99-99.99	3.72	1.602E+03	1.190E+03	1.35
3	4.30	4.32-99.99-99.99-99.99-99.99	4.32	1.595E+03	8.787E+02	1.80
4	4.87	5.02-99.99-99.99-99.99-99.99	4.94	1.577E+03	6.817E+02	2.31

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.82	9.63	1.30	2.18	2.21	7.35	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	2	3	4	5	6	
1	3.46	3.44-99.99-99.99-99.99-99.99	3.45	1.567E+03	1.322E+03	1.19
2	3.79	3.80-99.99-99.99-99.99-99.99	3.80	1.600E+03	1.140E+03	1.40
3	4.40	4.40-99.99-99.99-99.99-99.99	4.40	1.593E+03	8.481E+02	1.88
4	4.96	5.09-99.99-99.99-99.99-99.99	5.03	1.574E+03	6.627E+02	2.30

NOTE 20 x-y pairs were stored in plot data file PDFND106

Dist number = 19  
 File name DFND107  
 This data set taken on : 05/03/14 57:46

Data Set Number = 1

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.87	6.24	1.49	2.31	2.29	5.53	2.30

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.46	9.64	99.99	99.99	99.99	9.55	9.539E+04	1.463E+04	6.52
2	11.87	12.16	99.99	99.99	99.99	12.01	9.547E+04	1.079E+04	8.85
3	12.40	13.04	99.99	99.99	99.99	12.72	9.471E+04	1.004E+04	9.43
4	11.78	11.74	99.99	99.99	99.99	11.76	9.402E+04	1.127E+04	8.35
5	11.09	15.60	99.99	99.99	99.99	13.38	9.418E+04	9.572E+03	9.84

Data Set Number = 2

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.84	6.20	1.49	2.31	2.28	5.51	2.29

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	9.46	9.61	99.99	99.99	99.99	9.54	9.533E+04	1.465E+04	6.51
2	11.83	12.16	99.99	99.99	99.99	11.99	9.544E+04	1.081E+04	8.83
3	12.38	13.05	99.99	99.99	99.99	12.71	9.465E+04	1.003E+04	9.43
4	11.77	11.73	99.99	99.99	99.99	11.75	9.399E+04	1.127E+04	8.34
5	11.14	15.73	99.99	99.99	99.99	13.43	9.416E+04	9.514E+03	9.90

Data Set Number = 3

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.89	6.05	1.43	2.25	2.23	5.45	2.24

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	8.09	8.17	99.99	99.99	99.99	8.13	7.737E+04	1.466E+04	5.28
2	10.09	10.35	99.99	99.99	99.99	10.24	7.744E+04	1.067E+04	7.26
3	10.58	11.35	99.99	99.99	99.99	11.00	7.681E+04	9.724E+03	7.90
4	10.59	10.64	99.99	99.99	99.99	10.61	7.624E+04	1.033E+04	7.38
5	10.04	12.69	99.99	99.99	99.99	11.66	7.634E+04	6.978E+03	8.50

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
	8.94	6.06	1.44	2.26	2.23	5.47	2.25

Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	7.99	8.25	99.99	99.99	99.99	8.12	7.755E+04	1.473E+04	5.27
2	10.10	10.40	99.99	99.99	99.99	10.26	7.760E+04	1.067E+04	7.27
3	10.65	11.34	99.99	99.99	99.99	11.00	7.700E+04	9.761E+03	7.89
4	10.58	10.66	99.99	99.99	99.99	10.62	7.643E+04	1.035E+04	7.38
5	10.00	12.74	99.99	99.99	99.99	11.88	7.652E+04	8.981E+03	8.52

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.69	6.45	1.40	2.23	2.20	5.51	2.22			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.70	6.75	99.99	99.99	99.99	99.99	6.73	5.345E+04	1.312E+04	4.07
2	8.30	8.54	99.99	99.99	99.99	99.99	8.42	5.353E+04	9.495E+03	5.64
3	8.84	9.46	99.99	99.99	99.99	99.99	9.15	5.314E+04	8.509E+03	6.25
4	9.17	9.28	99.99	99.99	99.99	99.99	9.22	5.271E+04	8.515E+03	6.19
5	8.98	11.51	99.99	99.99	99.99	99.99	10.24	5.277E+04	7.452E+03	7.08

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.70	6.46	1.41	2.22	2.21	5.52	2.21			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	6.57	6.75	99.99	99.99	99.99	99.99	6.66	5.363E+04	1.338E+04	4.01
2	8.31	8.54	99.99	99.99	99.99	99.99	8.42	5.370E+04	9.518E+03	5.64
3	8.88	9.47	99.99	99.99	99.99	99.99	9.18	5.328E+04	8.500E+03	6.27
4	9.15	9.28	99.99	99.99	99.99	99.99	9.21	5.293E+04	8.548E+03	6.18
5	8.95	11.48	99.99	99.99	99.99	99.99	10.22	5.289E+04	7.490E+03	7.06

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.25	6.33	1.31	2.13	2.11	5.30	2.12			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	5.83	5.99	99.99	99.99	99.99	99.99	5.91	3.635E+04	1.045E+04	3.48
2	7.14	7.29	99.99	99.99	99.99	99.99	7.22	3.643E+04	7.829E+03	4.65
3	7.75	8.12	99.99	99.99	99.99	99.99	7.93	3.614E+04	6.891E+03	5.24
4	8.02	8.18	99.99	99.99	99.99	99.99	8.10	3.586E+04	6.792E+03	5.28
5	8.13	9.76	99.99	99.99	99.99	99.99	8.94	3.590E+04	5.986E+03	6.00

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.21	6.32	1.32	2.13	2.11	5.28	2.12			
Tube #	Wall Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
	1	2	3	4	5	6				
1	5.89	5.99	99.99	99.99	99.99	99.99	5.94	3.642E+04	1.039E+04	3.50
2	7.16	7.30	99.99	99.99	99.99	99.99	7.23	3.649E+04	7.824E+03	4.66
3	7.77	8.15	99.99	99.99	99.99	99.99	7.96	3.621E+04	6.874E+03	5.27
4	8.00	8.16	99.99	99.99	99.99	99.99	8.08	3.591E+04	6.827E+03	5.26
5	8.15	9.69	99.99	99.99	99.99	99.99	8.92	3.593E+04	6.018E+03	5.97

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.18	6.46	1.35	2.16	2.17	5.33	2.17			
Tube #	Wall Temperatures (°C)					Tnave (°C)	Qdp (W/m²)	H (W/m².K)	Thetab (K)	
	1	2	3	4	5	6				
1	5.45	5.61	99.99	99.99	99.99	99.99	5.53	2.295E+04	7.303E+03	3.14
2	6.42	6.54	99.99	99.99	99.99	99.99	6.49	2.303E+04	5.800E+03	3.97
3	7.01	7.17	99.99	99.99	99.99	99.99	7.09	2.285E+04	5.144E+03	4.44
4	7.08	7.26	99.99	99.99	99.99	99.99	7.17	2.267E+04	5.158E+03	4.40
5	7.45	8.39	99.99	99.99	99.99	99.99	7.92	2.266E+04	4.512E+03	5.02

Data Set Number = 10

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.18	6.47	1.36	2.19	2.16	5.33	2.17

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	5.49 5.60-99.99-99.99-99.99-99.99	5.55	2.293E+04	7.266E+03	3.16
2	6.45 6.58-99.99-99.99-99.99-99.99	6.51	2.300E+04	5.760E+03	3.99
3	7.06 7.21-99.99-99.99-99.99-99.99	7.13	2.283E+04	5.088E+03	4.49
4	7.12 7.28-99.99-99.99-99.99-99.99	7.20	2.266E+04	5.124E+03	4.42
5	7.58 8.45-99.99-99.99-99.99-99.99	8.02	2.265E+04	4.431E+03	5.11

Data Set Number = 11

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.29	6.77	1.35	2.18	2.19	5.47	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	5.09 5.12-99.99-99.99-99.99-99.99	5.11	1.477E+04	5.349E+03	2.76
2	5.95 5.99-99.99-99.99-99.99-99.99	5.97	1.485E+04	4.255E+03	3.49
3	6.32 6.29-99.99-99.99-99.99-99.99	6.31	1.474E+04	3.986E+03	3.70
4	6.39 6.51-99.99-99.99-99.99-99.99	6.45	1.462E+04	3.938E+03	3.71
5	6.98 7.53-99.99-99.99-99.99-99.99	7.25	1.461E+04	3.328E+03	4.39

Data Set Number = 12

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.31	6.78	1.35	2.19	2.20	5.48	2.19

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	5.10 5.13-99.99-99.99-99.99-99.99	5.12	1.479E+04	5.359E+03	2.76
2	5.95 6.00-99.99-99.99-99.99-99.99	5.98	1.487E+04	4.257E+03	3.49
3	6.33 6.29-99.99-99.99-99.99-99.99	6.31	1.476E+04	3.996E+03	3.69
4	6.38 6.50-99.99-99.99-99.99-99.99	6.44	1.464E+04	3.958E+03	3.70
5	6.92 7.45-99.99-99.99-99.99-99.99	7.19	1.464E+04	3.391E+03	4.32

Data Set Number = 13

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.71	6.94	1.37	2.21	2.25	5.67	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	4.75 4.77-99.99-99.99-99.99-99.99	4.76	1.030E+04	4.292E+03	2.40
2	5.43 5.47-99.99-99.99-99.99-99.99	5.45	1.037E+04	3.501E+03	2.99
3	5.69 5.66-99.99-99.99-99.99-99.99	5.67	1.031E+04	3.375E+03	3.06
4	5.89 5.91-99.99-99.99-99.99-99.99	5.90	1.022E+04	3.238E+03	3.16
5	6.64 7.00-99.99-99.99-99.99-99.99	6.82	1.021E+04	2.588E+03	3.94

Data Set Number = 14

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
8.77	6.97	1.38	2.21	2.26	5.70	2.23

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1 2 3 4 5 6				
1	4.75 4.77-99.99-99.99-99.99-99.99	4.76	1.032E+04	4.300E+03	2.40
2	5.44 5.48-99.99-99.99-99.99-99.99	5.46	1.039E+04	3.509E+03	2.96
3	5.67 5.66-99.99-99.99-99.99-99.99	5.67	1.033E+04	3.391E+03	3.05
4	5.88 5.92-99.99-99.99-99.99-99.99	5.90	1.023E+04	3.250E+03	3.15
5	6.63 6.97-99.99-99.99-99.99-99.99	6.80	1.023E+04	2.610E+03	3.92

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.36	7.03	1.20	2.10	2.15	5.86	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.22	4.24	-99.99	-99.99	-99.99	-99.99	4.23	7.046E+03	3.526E+03	2.00
2	4.75	4.78	-99.99	-99.99	-99.99	-99.99	4.77	7.106E+03	2.956E+03	2.40
3	5.00	4.91	-99.99	-99.99	-99.99	-99.99	4.95	7.069E+03	2.870E+03	2.46
4	5.26	5.19	-99.99	-99.99	-99.99	-99.99	5.22	7.002E+03	2.688E+03	2.60
5	6.04	6.24	-99.99	-99.99	-99.99	-99.99	6.14	6.991E+03	2.061E+03	3.39

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.41	7.03	1.18	2.09	2.14	5.88	2.12

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.23	4.25	-99.99	-99.99	-99.99	-99.99	4.24	7.039E+03	3.490E+03	2.02
2	4.75	4.77	-99.99	-99.99	-99.99	-99.99	4.76	7.104E+03	2.948E+03	2.41
3	4.99	4.90	-99.99	-99.99	-99.99	-99.99	4.94	7.062E+03	2.866E+03	2.46
4	5.24	5.17	-99.99	-99.99	-99.99	-99.99	5.20	6.991E+03	2.697E+03	2.59
5	6.05	6.23	-99.99	-99.99	-99.99	-99.99	6.14	6.986E+03	2.053E+03	3.40

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.92	7.57	1.21	2.18	2.18	6.23	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.84	3.86	-99.99	-99.99	-99.99	-99.99	3.85	4.140E+03	2.614E+03	1.58
2	4.22	4.24	-99.99	-99.99	-99.99	-99.99	4.23	4.191E+03	2.285E+03	1.83
3	4.49	4.37	-99.99	-99.99	-99.99	-99.99	4.43	4.169E+03	2.187E+03	1.91
4	5.01	4.79	-99.99	-99.99	-99.99	-99.99	4.90	4.127E+03	1.835E+03	2.25
5	5.55	5.70	-99.99	-99.99	-99.99	-99.99	5.63	4.123E+03	1.449E+03	2.84

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.96	7.71	1.21	2.17	2.19	6.29	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.83	3.87	-99.99	-99.99	-99.99	-99.99	3.85	4.147E+03	2.620E+03	1.58
2	4.21	4.25	-99.99	-99.99	-99.99	-99.99	4.23	4.196E+03	2.286E+03	1.84
3	4.48	4.38	-99.99	-99.99	-99.99	-99.99	4.43	4.177E+03	2.192E+03	1.91
4	5.00	4.82	-99.99	-99.99	-99.99	-99.99	4.91	4.134E+03	1.828E+03	2.26
5	5.55	5.69	-99.99	-99.99	-99.99	-99.99	5.62	4.129E+03	1.455E+03	2.84

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.40	9.06	1.28	2.25	2.23	6.91	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.46	3.47	-99.99	-99.99	-99.99	-99.99	3.47	1.893E+03	1.629E+03	1.16
2	3.76	3.60	-99.99	-99.99	-99.99	-99.99	3.76	1.926E+03	1.434E+03	1.34
3	4.23	4.16	-99.99	-99.99	-99.99	-99.99	4.21	1.920E+03	1.169E+03	1.64
4	4.76	4.72	-99.99	-99.99	-99.99	-99.99	4.74	1.899E+03	9.277E+02	2.05
5	4.97	5.11	-99.99	-99.99	-99.99	-99.99	5.04	1.897E+03	8.550E+02	2.22

Data Set Number = 20

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	10.44	9.13	1.29	2.26	2.25	6.95	2.25

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.52	3.52-99.99-99.99-99.99-99.99	3.52	1.903E+03	1.593E+03	1.19				
2	3.81	3.85-99.99-99.99-99.99-99.99	3.83	1.938E+03	1.410E+03	1.37				
3	4.29	4.23-99.99-99.99-99.99-99.99	4.26	1.930E+03	1.152E+03	1.68				
4	4.81	4.81-99.99-99.99-99.99-99.99	4.81	1.908E+03	9.096E+02	2.10				
5	5.06	5.19-99.99-99.99-99.99-99.99	5.12	1.906E+03	8.345E+02	2.28				

NOTE: 20 X-Y pairs were stored in plot data file PDFND107

Distl number = 19

File name DFND108

This data set taken on 05-03-13 51:35

Data Set Number = 1

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	6.76	5.47	1.51	2.19	2.18	4.58	2.18

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.39	9.58-99.99-99.99-99.99-99.99	9.49	9.250E+04	1.404E+04	6.59				
2	11.90	12.21-99.99-99.99-99.99-99.99	12.10	9.259E+04	1.020E+04	9.07				
3	10.58	12.66-99.99-99.99-99.99-99.99	12.62	9.183E+04	9.697E+03	9.47				
4	11.58	11.48-99.99-99.99-99.99-99.99	11.53	9.125E+04	1.105E+04	8.26				
5	11.24	15.41-99.99-99.99-99.99-99.99	13.33	9.130E+04	9.203E+03	9.92				

Data Set Number = 2

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	6.69	5.42	1.49	2.20	2.19	4.54	2.20

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	9.34	9.60-99.99-99.99-99.99-99.99	9.47	9.235E+04	1.406E+04	6.56				
2	11.90	12.32-99.99-99.99-99.99-99.99	12.11	9.243E+04	1.019E+04	9.07				
3	12.62	12.64-99.99-99.99-99.99-99.99	12.63	9.167E+04	9.688E+03	9.46				
4	11.57	11.26-99.99-99.99-99.99-99.99	11.45	9.109E+04	1.115E+04	8.17				
5	11.25	15.42-99.99-99.99-99.99-99.99	13.34	9.116E+04	9.191E+03	9.92				

Data Set Number = 3

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
	6.57	5.50	1.26	2.22	2.21	4.44	2.21

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	7.95	8.13-99.99-99.99-99.99-99.99	8.05	7.040E+04	1.334E+04	5.28				
2	9.70	9.69-99.99-99.99-99.99-99.99	9.79	7.046E+04	1.022E+04	6.89				
3	10.10	10.32-99.99-99.99-99.99-99.99	10.21	6.992E+04	9.727E+03	7.19				
4	9.69	9.58-99.99-99.99-99.99-99.99	9.64	6.949E+04	1.071E+04	6.49				
5	9.45	10.54-99.99-99.99-99.99-99.99	11.00	6.947E+04	9.002E+03	7.72				

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.57	5.47	1.31	2.23	2.22	4.45	2.23

Tube #	Well	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	2	3	4	5	6					
1	7.99	8.15	-99.99	-99.99	-99.99	-99.99	8.07	7.075E+04	1.339E+04	5.28
2	9.70	9.97	-99.99	-99.99	-99.99	-99.99	9.83	7.082E+04	1.024E+04	6.92
3	10.09	10.32	-99.99	-99.99	-99.99	-99.99	10.21	7.026E+04	9.801E+03	7.17
4	9.76	9.76	-99.99	-99.99	-99.99	-99.99	9.76	6.978E+04	1.059E+04	6.59
5	9.41	12.45	-99.99	-99.99	-99.99	-99.99	10.93	6.977E+04	9.138E+03	7.64

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.20	5.87	1.39	2.11	2.10	4.82	2.10

Tube #	Well	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	2	3	4	5	6					
1	6.04	6.33	-99.99	-99.99	-99.99	-99.99	6.19	4.818E+04	1.308E+04	3.68
2	7.31	7.55	-99.99	-99.99	-99.99	-99.99	7.43	4.827E+04	1.006E+04	4.80
3	7.77	8.03	-99.99	-99.99	-99.99	-99.99	7.90	4.789E+04	9.317E+03	5.14
4	8.05	7.87	-99.99	-99.99	-99.99	-99.99	7.96	4.758E+04	9.373E+03	5.08
5	7.79	10.03	-99.99	-99.99	-99.99	-99.99	8.91	4.756E+04	8.071E+03	5.89

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.24	5.90	1.39	2.12	2.09	4.84	2.11

Tube #	Well	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	2	3	4	5	6					
1	6.01	6.21	-99.99	-99.99	-99.99	-99.99	6.11	4.825E+04	1.339E+04	3.61
2	7.30	7.55	-99.99	-99.99	-99.99	-99.99	7.43	4.833E+04	1.009E+04	4.79
3	7.75	8.04	-99.99	-99.99	-99.99	-99.99	7.90	4.794E+04	9.335E+03	5.14
4	8.06	7.85	-99.99	-99.99	-99.99	-99.99	7.95	4.762E+04	9.400E+03	5.07
5	7.84	10.03	-99.99	-99.99	-99.99	-99.99	8.94	4.761E+04	8.041E+03	5.92

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.79	6.55	1.60	2.14	2.12	5.32	2.13

Tube #	Well	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	2	3	4	5	6					
1	5.26	5.24	-99.99	-99.99	-99.99	-99.99	5.25	3.200E+04	1.129E+04	2.83
2	6.26	6.44	-99.99	-99.99	-99.99	-99.99	6.35	3.209E+04	8.429E+03	3.81
3	6.73	6.68	-99.99	-99.99	-99.99	-99.99	6.81	3.185E+04	7.699E+03	4.14
4	7.17	7.05	-99.99	-99.99	-99.99	-99.99	7.11	3.162E+04	7.322E+03	4.32
5	7.14	6.63	-99.99	-99.99	-99.99	-99.99	7.69	3.159E+04	6.369E+03	4.96

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.85	6.64	1.67	2.15	2.12	5.39	2.14

Tube #	Well	Temperatures (Deg C)					Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	2	3	4	5	6					
1	5.36	5.27	-99.99	-99.99	-99.99	-99.99	5.32	3.208E+04	1.107E+04	2.90
2	6.27	6.45	-99.99	-99.99	-99.99	-99.99	6.36	3.216E+04	8.437E+03	3.81
3	6.75	6.89	-99.99	-99.99	-99.99	-99.99	6.82	3.191E+04	7.705E+03	4.14
4	7.20	7.07	-99.99	-99.99	-99.99	-99.99	7.13	3.166E+04	7.317E+03	4.33
5	7.09	6.62	-99.99	-99.99	-99.99	-99.99	7.85	3.165E+04	6.433E+03	4.92

Data Set Number = 9

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
8.15	6.11	1.64	2.12	2.11	5.30	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.86	4.78-99.99-99.99-99.99-99.99	4.82	1.995E+04	7.965E+03	2.50
2	5.49	5.57-99.99-99.99-99.99-99.99	5.53	2.003E+04	6.488E+03	3.09
3	5.97	5.96-99.99-99.99-99.99-99.99	5.97	1.989E+04	5.861E+03	3.39
4	6.38	6.33-99.99-99.99-99.99-99.99	6.36	1.974E+04	5.395E+03	3.66
5	6.71	7.53-99.99-99.99-99.99-99.99	7.12	1.972E+04	4.596E+03	4.29

Data Set Number = 10

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
8.16	6.88	1.46	2.10	2.10	5.23	2.10

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.87	4.78-99.99-99.99-99.99-99.99	4.82	1.990E+04	7.891E+03	2.52
2	5.48	5.58-99.99-99.99-99.99-99.99	5.53	1.998E+04	6.448E+03	3.10
3	5.95	5.96-99.99-99.99-99.99-99.99	5.96	1.984E+04	5.830E+03	3.40
4	6.36	6.23-99.99-99.99-99.99-99.99	6.35	1.959E+04	5.383E+03	3.66
5	6.77	7.51-99.99-99.99-99.99-99.99	7.14	1.967E+04	4.547E+03	4.33

Data Set Number = 11

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
7.52	5.90	1.26	2.11	2.10	4.89	2.10

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.29	4.22-99.99-99.99-99.99-99.99	4.26	1.249E+04	6.222E+03	2.01
2	4.68	4.89-99.99-99.99-99.99-99.99	4.89	1.257E+04	5.014E+03	2.51
3	5.22	5.28-99.99-99.99-99.99-99.99	5.30	1.246E+04	4.473E+03	2.79
4	5.70	5.70-99.99-99.99-99.99-99.99	5.70	1.238E+04	4.035E+03	3.07
5	6.05	6.54-99.99-99.99-99.99-99.99	6.31	1.237E+04	3.489E+03	3.54

Data Set Number = 12

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
7.50	5.89	1.26	2.12	2.10	4.88	2.11

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	4.71	4.23-99.99-99.99-99.99-99.99	4.27	1.245E+04	6.171E+03	2.02
2	4.91	4.91-99.99-99.99-99.99-99.99	4.91	1.253E+04	4.967E+03	2.52
3	5.35	5.28-99.99-99.99-99.99-99.99	5.32	1.245E+04	4.440E+03	2.80
4	5.75	5.72-99.99-99.99-99.99-99.99	5.74	1.234E+04	3.985E+03	3.10
5	6.07	6.55-99.99-99.99-99.99-99.99	6.31	1.232E+04	3.462E+03	3.54

Data Set Number = 13

Tv1	Tv2	Tv3	TId1	TId2	Tvav	TIdav
7.42	5.96	1.25	2.11	2.13	4.87	2.12

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.95	3.87-99.99-99.99-99.99-99.99	3.91	8.272E+03	4.918E+03	1.66
2	4.45	4.43-99.99-99.99-99.99-99.99	4.44	8.343E+03	4.021E+03	2.07
3	4.85	4.78-99.99-99.99-99.99-99.99	4.82	8.291E+03	3.561E+03	2.33
4	5.16	5.11-99.99-99.99-99.99-99.99	5.14	8.217E+03	3.264E+03	2.52
5	5.29	6.71-99.99-99.99-99.99-99.99	5.55	8.203E+03	2.929E+03	2.80

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.42	6.00	1.26	2.13	2.14	4.89	2.13

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.96	3.89-99.99-99.99-99.99-99.99	3.93	8.246E+03	4.919E+03	1.68
2	4.47	4.43-99.99-99.99-99.99-99.99	4.45	8.317E+03	4.009E+03	2.07
3	4.88	4.78-99.99-99.99-99.99-99.99	4.83	8.266E+03	3.555E+03	2.33
4	5.17	5.11-99.99-99.99-99.99-99.99	5.14	8.190E+03	3.267E+03	2.51
5	5.42	5.72-99.99-99.99-99.99-99.99	5.57	8.180E+03	2.913E+03	2.81

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.87	6.47	1.31	2.23	2.28	5.22	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.76	3.76-99.99-99.99-99.99-99.99	3.76	5.285E+03	3.739E+03	1.41
2	4.21	4.17-99.99-99.99-99.99-99.99	4.19	5.343E+03	3.121E+03	1.71
3	4.48	4.35-99.99-99.99-99.99-99.99	4.41	5.316E+03	2.941E+03	1.81
4	4.73	4.65-99.99-99.99-99.99-99.99	4.69	5.265E+03	2.691E+03	1.96
5	4.91	5.11-99.99-99.99-99.99-99.99	5.01	5.256E+03	2.449E+03	2.15

Data Set Number = 16

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.93	6.49	1.31	2.24	2.28	5.24	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.77	3.75-99.99-99.99-99.99-99.99	3.76	5.269E+03	3.750E+03	1.41
2	4.21	4.17-99.99-99.99-99.99-99.99	4.19	5.331E+03	3.124E+03	1.71
3	4.49	4.36-99.99-99.99-99.99-99.99	4.42	5.298E+03	2.923E+03	1.81
4	4.75	4.65-99.99-99.99-99.99-99.99	4.70	5.245E+03	2.681E+03	1.96
5	4.94	5.12-99.99-99.99-99.99-99.99	5.03	5.241E+03	2.426E+03	2.16

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.56	6.57	1.24	2.26	2.24	5.46	2.25

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.42	3.39-99.99-99.99-99.99-99.99	3.40	2.892E+03	2.686E+03	1.08
2	3.73	3.66-99.99-99.99-99.99-99.99	3.70	2.939E+03	2.363E+03	1.24
3	3.99	3.82-99.99-99.99-99.99-99.99	3.90	2.923E+03	2.216E+03	1.32
4	4.25	4.09-99.99-99.99-99.99-99.99	4.17	2.892E+03	1.984E+03	1.46
5	4.36	4.47-99.99-99.99-99.99-99.99	4.41	2.889E+03	1.836E+03	1.57

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.69	6.57	1.25	2.26	2.25	5.50	2.26

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)	
1	2	3	4	5	6	
1	3.39	3.37-99.99-99.99-99.99-99.99	3.38	2.899E+03	2.766E+03	1.05
2	3.74	3.67-99.99-99.99-99.99-99.99	3.71	2.942E+03	2.367E+03	1.24
3	3.99	3.82-99.99-99.99-99.99-99.99	3.90	2.930E+03	2.231E+03	1.31
4	4.25	4.10-99.99-99.99-99.99-99.99	4.17	2.898E+03	1.996E+03	1.45
5	4.34	4.45-99.99-99.99-99.99-99.99	4.39	2.893E+03	1.876E+03	1.54

Data Set Number = 19

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
9.34	6.85	1.18	2.23	2.24	5.79	2.24

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.11	3.12	1.430E+03	1.745E+03	.82
2	3.46	3.47	1.461E+03	1.408E+03	1.04
3	3.75	3.75	1.453E+03	1.224E+03	1.19
4	4.02	4.03	1.440E+03	1.071E+03	1.34
5	3.88	3.94	1.437E+03	1.282E+03	1.12

Data Set Number = 20

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
9.40	6.90	1.19	2.25	2.25	5.63	2.25

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	3.11	3.12	1.432E+03	1.773E+03	.81
2	3.45	3.47	1.462E+03	1.425E+03	1.03
3	3.75	3.76	1.457E+03	1.221E+03	1.19
4	4.04	4.06	1.440E+03	1.059E+03	1.36
5	3.87	3.92	1.437E+03	1.314E+03	1.09

NOTE 20 X-Y pairs were stored in plot data file POFND108

Dist number = 20

File name OFND108

This data set taken on 05 04 09 43 05

Data Set Number = 1

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.05	12.30	1.18	2.22	2.22	9.18	2.22

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	12.75	12.65	9.674E+04	9.994E+03	9.68
2	17.42	17.66	9.676E+04	6.556E+03	14.76

Data Set Number = 2

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
14.00	12.08	1.19	2.22	2.23	9.16	2.23

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	12.76	12.66	9.652E+04	9.970E+03	9.68
2	17.42	17.92	9.657E+04	6.520E+03	14.81

Data Set Number = 3

Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav
13.65	12.17	1.22	2.24	2.24	9.00	2.24

Tube #	Wall Temp (Deg C)	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	11.11	11.11	7.317E+04	8.835E+03	8.28
2	14.81	15.16	7.325E+04	6.803E+03	12.20

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.63	17.13	1.23	2.24	2.25	9.00	2.25	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	11.11	11.10	99.99	99.99	99.99	99.99	11.11	7.311E+04	8.831E+03	8.28
2	14.77	15.46	99.99	99.99	99.99	99.99	15.12	7.316E+04	6.013E+03	12.17

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.51	11.95	1.26	2.27	2.28	8.91	2.28	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.46	9.52	99.99	99.99	99.99	99.99	9.49	5.008E+04	7.367E+03	6.80
2	12.13	12.26	99.99	99.99	99.99	99.99	12.19	5.016E+04	5.351E+03	9.37

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.50	11.93	1.28	2.27	2.28	8.90	2.28	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.50	9.61	99.99	99.99	99.99	99.99	9.56	5.037E+04	7.339E+03	6.86
2	12.20	12.32	99.99	99.99	99.99	99.99	12.26	5.044E+04	5.347E+03	9.43

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.50	11.72	1.22	2.26	2.28	8.82	2.27	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.16	8.34	99.99	99.99	99.99	99.99	8.25	3.245E+04	5.889E+03	5.68
2	10.21	10.21	99.99	99.99	99.99	99.99	10.21	3.352E+04	4.464E+03	7.51

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.52	11.71	1.22	2.26	2.28	8.82	2.27	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.11	8.33	99.99	99.99	99.99	99.99	8.22	3.351E+04	5.932E+03	5.65
2	10.19	10.20	99.99	99.99	99.99	99.99	10.19	3.358E+04	4.479E+03	7.50

Data Set Number = 9

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.52	11.50	1.04	2.13	2.14	8.69	2.13	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.79	6.95	99.99	99.99	99.99	99.99	6.87	2.053E+04	4.534E+03	4.52
2	8.42	6.38	99.99	99.99	99.99	99.99	8.40	2.061E+04	3.472E+03	5.92

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.51	11.48	1.05	2.12	2.13	8.68	2.13

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.76	6.94	-99.99	-99.99	-99.99	-99.99	6.85	2.046E+04	4.523E+03	4.52
2	8.35	8.35	-99.99	-99.99	-99.99	-99.99	8.35	2.054E+04	3.485E+03	5.89

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.69	11.70	1.07	2.18	2.18	8.82	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.83	6.02	-99.99	-99.99	-99.99	-99.99	5.93	1.246E+04	3.463E+03	3.60
2	7.30	7.39	-99.99	-99.99	-99.99	-99.99	7.34	1.253E+04	2.565E+03	4.89

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.71	11.77	1.08	2.16	2.20	8.85	2.19

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.84	6.01	-99.99	-99.99	-99.99	-99.99	5.93	1.247E+04	3.472E+03	3.59
2	7.34	7.34	-99.99	-99.99	-99.99	-99.99	7.34	1.253E+04	2.570E+03	4.88

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.07	12.68	1.09	2.27	2.25	9.28	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.19	5.31	-99.99	-99.99	-99.99	-99.99	5.25	8.693E+03	3.026E+03	2.87
2	6.70	6.79	-99.99	-99.99	-99.99	-99.99	6.74	8.762E+03	2.067E+03	4.24

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.12	12.77	1.09	2.26	2.25	9.33	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.19	5.31	-99.99	-99.99	-99.99	-99.99	5.25	8.674E+03	3.015E+03	2.88
2	6.71	6.75	-99.99	-99.99	-99.99	-99.99	6.73	8.743E+03	2.067E+03	4.23

Data Set Number = 15

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
14.33	13.33	.97	2.16	2.16	9.54	2.16

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.43	4.52	-99.99	-99.99	-99.99	-99.99	4.47	5.843E+03	2.541E+03	2.22
2	5.97	6.04	-99.99	-99.99	-99.99	-99.99	6.01	5.701E+03	1.572E+03	3.63

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	14.34	13.35	.96	2.16	2.15	9.55	2.15	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.44	4.53	99.99	99.99	99.99	99.99	4.49	5.658E+03	2.530E+03	2.24
2	5.99	6.02	99.99	99.99	99.99	99.99	6.01	5.718E+03	1.576E+03	3.63

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	14.44	13.55	1.07	2.30	2.25	9.69	2.28	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.08	4.10	99.99	99.99	99.99	99.99	4.09	2.898E+03	1.672E+03	1.73
2	5.60	5.62	99.99	99.99	99.99	99.99	5.61	2.941E+03	9.416E+02	3.12

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	14.42	13.56	1.05	2.30	2.26	9.68	2.28	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	4.05	4.05	99.99	99.99	99.99	99.99	4.05	2.900E+03	1.711E+03	1.69
2	5.59	5.60	99.99	99.99	99.99	99.99	5.60	2.942E+03	9.458E+02	3.11

Data Set Number = 19

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	14.43	13.62	.97	2.25	2.20	9.68	2.23	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	3.80	3.64	99.99	99.99	99.99	99.99	3.72	1.537E+03	1.079E+03	1.43
2	5.02	4.99	99.99	99.99	99.99	99.99	5.00	1.567E+03	6.073E+02	2.58

Data Set Number = 20

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	14.44	13.63	.97	2.25	2.20	9.68	2.23	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	3.79	3.66	99.99	99.99	99.99	99.99	3.73	1.555E+03	1.086E+03	1.43
2	5.02	5.00	99.99	99.99	99.99	99.99	5.01	1.587E+03	6.134E+02	2.59

NOTE 20 X-Y pairs were stored in plot data file PDFND109

Dist number = 20

File name: DFND110

This data set taken on: 05 04 08 25 38

Data Set Number = 1

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav	
	14.78	13.41	1.03	2.12	2.10	9.74	2.11	

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	11.67	11.46	99.99	99.99	99.99	99.99	11.56	9.557E+04	1.097E+04	8.72
2	15.11	15.12	99.99	99.99	99.99	99.99	15.12	9.563E+04	7.879E+03	12.14
3	16.88	17.21	99.99	99.99	99.99	99.99	17.05	9.482E+04	6.798E+03	13.95

Data Set Number = 2

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.76	13.38	1.02	2.11	2.10	9.72	2.11

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	11.63	11.48	-99.99	-99.99	-99.99	-99.99	11.55	9.574E+04	1.099E+04	8.71
2	15.17	15.08	-99.99	-99.99	-99.99	-99.99	15.13	9.581E+04	7.883E+03	12.15
3	16.05	17.13	-99.99	-99.99	-99.99	-99.99	16.99	9.499E+04	6.838E+03	13.69

Data Set Number = 3

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.85	13.42	1.13	2.17	2.17	9.80	2.17

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.31	10.29	-99.99	-99.99	-99.99	-99.99	10.30	7.578E+04	1.006E+04	7.53
2	13.09	13.08	-99.99	-99.99	-99.99	-99.99	13.08	7.580E+04	7.441E+03	10.19
3	14.85	15.07	-99.99	-99.99	-99.99	-99.99	14.96	7.518E+04	6.297E+03	11.94

Data Set Number = 4

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.87	13.42	1.13	2.18	2.16	9.81	2.17

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	10.55	10.32	-99.99	-99.99	-99.99	-99.99	10.43	7.569E+04	9.872E+03	7.67
2	13.09	12.11	-99.99	-99.99	-99.99	-99.99	13.10	7.577E+04	6.426E+03	10.20
3	14.73	14.96	-99.99	-99.99	-99.99	-99.99	14.84	7.510E+04	6.352E+03	11.82

Data Set Number = 5

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.56	13.81	1.18	2.20	2.21	9.85	2.20

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.06	9.14	-99.99	-99.99	-99.99	-99.99	9.10	5.250E+04	8.120E+03	6.47
2	11.06	10.89	-99.99	-99.99	-99.99	-99.99	10.98	5.257E+04	6.403E+03	8.21
3	12.57	12.60	-99.99	-99.99	-99.99	-99.99	12.58	5.213E+04	5.379E+03	9.69

Data Set Number = 6

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.04	12.85	1.10	2.21	2.22	9.86	2.22

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.05	9.18	-99.99	-99.99	-99.99	-99.99	9.13	5.272E+04	8.137E+03	6.48
2	11.05	10.90	-99.99	-99.99	-99.99	-99.99	10.90	5.281E+04	6.443E+03	8.20
3	12.48	12.55	-99.99	-99.99	-99.99	-99.99	12.51	5.236E+04	5.451E+03	9.61

Data Set Number = 7

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.76	12.99	1.13	2.15	2.16	9.47	2.16

Tube #	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.86	8.03	-99.99	-99.99	-99.99	-99.99	7.94	3.503E+04	6.394E+03	5.48
2	9.24	9.17	-99.99	-99.99	-99.99	-99.99	9.25	3.510E+04	5.271E+03	6.66
3	10.65	10.54	-99.99	-99.99	-99.99	-99.99	10.59	3.484E+04	4.426E+03	7.87

Data Set Number = 8

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.29	12.95	1.15	2.14	2.17	9.46	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	7.84	8.05	-99.99	-99.99	-99.99	7.95	3.504E+04	6.389E+03	5.48
2	9.34	9.18	-99.99	-99.99	-99.99	9.26	3.513E+04	5.270E+03	6.67
3	10.66	10.52	-99.99	-99.99	-99.99	10.59	3.407E+04	4.432E+03	7.87

Data Set Number = 9

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.20	13.14	1.12	2.19	2.23	9.49	2.21

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	6.03	6.99	-99.99	-99.99	-99.99	6.91	2.203E+04	4.914E+03	4.48
2	7.98	7.07	-99.99	-99.99	-99.99	7.93	2.210E+04	4.111E+03	5.38
3	9.06	8.92	-99.99	-99.99	-99.99	9.00	2.195E+04	3.473E+03	6.32

Data Set Number = 10

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.20	13.15	1.13	2.20	2.23	9.49	2.22

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	6.03	7.02	-99.99	-99.99	-99.99	6.92	2.198E+04	4.893E+03	4.49
2	8.01	7.09	-99.99	-99.99	-99.99	7.95	2.205E+04	4.091E+03	5.39
3	9.17	8.90	-99.99	-99.99	-99.99	9.03	2.187E+04	3.447E+03	6.34

Data Set Number = 11

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.22	13.16	1.02	2.15	2.17	9.47	2.16

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	5.84	5.92	-99.99	-99.99	-99.99	5.88	1.381E+04	3.877E+03	3.56
2	6.66	6.64	-99.99	-99.99	-99.99	6.65	1.388E+04	3.303E+03	4.20
3	7.66	7.69	-99.99	-99.99	-99.99	7.78	1.360E+04	2.650E+03	5.21

Data Set Number = 12

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.20	13.16	1.03	2.14	2.17	9.46	2.15

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	5.02	5.93	-99.99	-99.99	-99.99	5.87	1.384E+04	3.881E+03	3.57
2	6.68	6.64	-99.99	-99.99	-99.99	6.66	1.391E+04	3.295E+03	4.22
3	7.84	7.68	-99.99	-99.99	-99.99	7.76	1.383E+04	2.661E+03	5.20

Data Set Number = 13

Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav
14.26	13.18	.97	2.11	2.18	9.47	2.14

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	5.24	5.23	-99.99	-99.99	-99.99	5.24	9.266E+03	3.121E+03	2.97
2	5.07	5.79	-99.99	-99.99	-99.99	5.03	9.336E+03	2.720E+03	3.43
3	7.07	6.95	-99.99	-99.99	-99.99	7.01	9.281E+03	2.071E+03	4.48

Data Set Number = 14

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	14.28	13.17	1.00	2.13	2.20	9.48	2.16			
Tube	Wall Temperatures (Deg C)									
#	1	2	3	4	5	6				
	Tnave (Deg C)						Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)	
1	5.28	5.26	99.99	99.99	99.99	99.99	5.27	9.247E+03	3.098E+03	2.98
2	5.89	5.83	99.99	99.99	99.99	99.99	5.86	9.318E+03	2.705E+03	3.44
3	7.13	6.95	99.99	99.99	99.99	99.99	7.04	9.259E+03	2.857E+03	4.50

Data Set Number = 15

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	14.88	13.66	.95	2.10	2.18	9.83	2.14			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.76	4.75	99.99	99.99	99.99	99.99	4.76	6.170E+03	2.452E+03	2.52
2	5.16	5.11	99.99	99.99	99.99	99.99	5.13	6.231E+03	2.253E+03	2.77
3	6.41	6.34	99.99	99.99	99.99	99.99	6.38	6.198E+03	1.598E+03	3.88

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav		
	14.92	13.70	.97	2.11	2.20	9.87	2.16		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.76	4.78-99.99-99.99-99.99-99.99	4.77	6.167E+03	2.453E+03	2.51			
2	5.18	5.14-99.99-99.99-99.99-99.99	5.16	6.225E+03	2.244E+03	2.77			
3	6.46	6.39-99.99-99.99-99.99-99.99	6.42	6.191E+03	1.594E+03	3.91			

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav		
	15.27	14.51	1.02	2.21	2.28	10.27	2.24		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .F)	(K)
1	4.21	4.20-99.99-99.99-99.99-99.99	4.25	3.555E+03	1.842E+03	1.93			
2	4.85	4.81-99.99-99.99-99.99-99.99	4.88	3.599E+03	1.690E+03	2.13			
3	5.82	5.77-99.99-99.99-99.99-99.99	5.80	3.583E+03	1.115E+03	3.21			

Data Set Number = 18

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav		
	15.28	14.53	1.02	2.20	2.28	10.28	2.24		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.25	4.21-99.99-99.99-99.99-99.99	4.25	3.551E+03	1.839E+03	1.93			
2	4.82	4.80-99.99-99.99-99.99-99.99	4.87	3.599E+03	1.702E+03	2.11			
3	5.83	5.79-99.99-99.99-99.99-99.99	5.81	3.583E+03	1.110E+03	3.23			

Data Set Number = 19

	T1	T2	T3	Tid1	Tid2	Tvav	Tidav		
	15.30	14.60	.92	2.14	2.23	10.28	2.18		
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.68	3.56-99.99-99.99-99.99-99.99	3.62	1.667E+03	1.216E+03				1.27
2	4.02	3.88-99.99-99.99-99.99-99.99	3.95	1.698E+03	1.083E+03				1.57
3	4.85	4.89-99.99-99.99-99.99-99.99	4.89	1.692E+03	7.113E+02				2.38

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
15.29	14.60	.91	2.15	2.22	10.27	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	3.67	3.54	-99.99	-99.99	-99.99	-99.99	3.60	1.667E+03	1.233E+03	1.35
2	3.98	3.84	-99.99	-99.99	-99.99	-99.99	3.91	1.699E+03	1.112E+03	1.53
3	4.84	4.84	-99.99	-99.99	-99.99	-99.99	4.84	1.691E+03	7.254E+02	2.33

NOTE: 20 X-Y pairs were stored in plot data file PDFND110

Dist number = 20

File name: DFND111

This data set taken on : 05:03:22:18:21

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.23	6.39	1.35	2.31	2.27	5.66	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	12.39	12.21	-99.99	-99.99	-99.99	-99.99	12.30	9.928E+04	1.074E+04	9.24
2	15.21	15.51	-99.99	-99.99	-99.99	-99.99	15.36	9.934E+04	8.163E+03	12.17
3	16.23	16.73	-99.99	-99.99	-99.99	-99.99	16.48	9.848E+04	7.477E+03	13.17
4	17.18	16.99	-99.99	-99.99	-99.99	-99.99	17.09	9.788E+04	7.171E+03	13.65

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.20	6.34	1.65	2.31	2.27	5.73	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	12.34	12.13	-99.99	-99.99	-99.99	-99.99	12.23	9.926E+04	1.062E+04	9.18
2	15.17	15.55	-99.99	-99.99	-99.99	-99.99	15.36	9.936E+04	8.164E+03	12.17
3	16.22	16.74	-99.99	-99.99	-99.99	-99.99	16.48	9.852E+04	7.481E+03	13.17
4	17.26	17.14	-99.99	-99.99	-99.99	-99.99	17.21	9.789E+04	7.105E+03	13.78

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.90	6.21	1.26	2.31	2.27	5.46	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.46	10.36	-99.99	-99.99	-99.99	-99.99	10.41	7.847E+04	1.045E+04	7.51
2	13.12	13.44	-99.99	-99.99	-99.99	-99.99	13.28	7.856E+04	7.670E+03	10.24
3	14.29	14.61	-99.99	-99.99	-99.99	-99.99	14.45	7.786E+04	6.889E+03	11.29
4	15.26	15.20	-99.99	-99.99	-99.99	-99.99	15.23	7.742E+04	6.482E+03	11.95

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.88	6.20	1.26	2.30	2.27	5.45	2.28

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	10.52	10.42	-99.99	-99.99	-99.99	-99.99	10.47	7.864E+04	1.039E+04	7.57
2	13.08	13.45	-99.99	-99.99	-99.99	-99.99	13.27	7.869E+04	7.689E+03	10.23
3	14.28	14.57	-99.99	-99.99	-99.99	-99.99	14.41	7.805E+04	6.935E+03	11.25
4	15.30	15.22	-99.99	-99.99	-99.99	-99.99	15.26	7.758E+04	6.476E+03	11.98

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.25	5.95	1.41	2.21	2.18	5.20	2.20

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.17	8.88	-99.99	-99.99	-99.99	-99.99	9.02	5.530E+04	8.670E+03	6.38
2	10.92	11.16	-99.99	-99.99	-99.99	-99.99	11.04	5.538E+04	6.702E+03	8.26
3	12.25	12.32	-99.99	-99.99	-99.99	-99.99	12.28	5.492E+04	5.855E+03	9.38
4	13.00	12.97	-99.99	-99.99	-99.99	-99.99	12.98	5.456E+04	5.481E+03	9.95

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.19	5.93	1.17	2.19	2.17	5.10	2.18

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	8.97	8.86	-99.99	-99.99	-99.99	-99.99	8.91	5.530E+04	8.801E+03	6.28
2	10.86	11.13	-99.99	-99.99	-99.99	-99.99	11.00	5.539E+04	6.724E+03	8.24
3	12.15	12.29	-99.99	-99.99	-99.99	-99.99	12.22	5.493E+04	5.884E+03	9.34
4	12.93	12.98	-99.99	-99.99	-99.99	-99.99	12.95	5.454E+04	5.487E+03	9.94

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.90	6.01	1.05	2.13	2.12	4.99	2.13

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.80	7.85	-99.99	-99.99	-99.99	-99.99	7.83	3.673E+04	6.817E+03	5.39
2	9.24	9.42	-99.99	-99.99	-99.99	-99.99	9.33	3.680E+04	5.448E+03	6.76
3	10.33	10.27	-99.99	-99.99	-99.99	-99.99	10.30	3.651E+04	4.804E+03	7.60
4	11.06	11.12	-99.99	-99.99	-99.99	-99.99	11.10	3.625E+04	4.384E+03	8.27

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.90	6.00	1.00	2.12	2.11	4.99	2.12

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.80	7.85	-99.99	-99.99	-99.99	-99.99	7.84	3.667E+04	6.795E+03	5.40
2	9.24	9.40	-99.99	-99.99	-99.99	-99.99	9.32	3.675E+04	5.442E+03	6.75
3	10.32	10.27	-99.99	-99.99	-99.99	-99.99	10.30	3.645E+04	4.793E+03	7.60
4	11.13	11.16	-99.99	-99.99	-99.99	-99.99	11.14	3.620E+04	4.351E+03	8.32

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.87	6.13	1.10	2.16	2.16	5.03	2.17

Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.64	6.87	-99.99	-99.99	-99.99	-99.99	6.95	2.347E+04	5.258E+03	4.46
2	8.01	8.13	-99.99	-99.99	-99.99	-99.99	8.07	2.355E+04	4.246E+03	5.55
3	8.79	8.63	-99.99	-99.99	-99.99	-99.99	8.71	2.337E+04	3.857E+03	6.06
4	9.47	9.60	-99.99	-99.99	-99.99	-99.99	9.54	2.319E+04	3.429E+03	6.76

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.85	6.15	1.09	2.17	2.19	5.03	2.18

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.87	6.90-99.99-99.99-99.99-99.99	6.88	2.343E+04	5.233E+03	4.48				
2	8.02	8.13-99.99-99.99-99.99-99.99	8.07	2.351E+04	4.243E+03	5.54				
3	8.81	8.65-99.99-99.99-99.99-99.99	8.73	2.333E+04	3.845E+03	6.07				
4	9.48	9.59-99.99-99.99-99.99-99.99	9.54	2.316E+04	3.432E+03	6.75				

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.96	6.33	1.12	2.23	2.25	5.13	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.05	6.14-99.99-99.99-99.99-99.99	6.09	1.510E+04	4.096E+03	3.69				
2	6.97	7.09-99.99-99.99-99.99-99.99	7.03	1.518E+04	3.374E+03	4.50				
3	7.42	7.35-99.99-99.99-99.99-99.99	7.38	1.508E+04	3.195E+03	4.72				
4	8.29	8.46-99.99-99.99-99.99-99.99	8.38	1.495E+04	2.676E+03	5.59				

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.99	6.35	1.11	2.24	2.26	5.15	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.04	6.11-99.99-99.99-99.99-99.99	6.07	1.484E+04	4.054E+03	3.66				
2	6.94	7.09-99.99-99.99-99.99-99.99	7.02	1.492E+04	3.335E+03	4.47				
3	7.35	7.29-99.99-99.99-99.99-99.99	7.32	1.482E+04	3.189E+03	4.65				
4	8.26	8.44-99.99-99.99-99.99-99.99	8.35	1.469E+04	2.646E+03	5.55				

Data Set Number = 13

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.16	6.51	1.04	2.23	2.24	5.23	2.23

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.26	5.39-99.99-99.99-99.99-99.99	5.32	1.014E+04	3.424E+03	2.96				
2	6.03	6.15-99.99-99.99-99.99-99.99	6.09	1.021E+04	2.838E+03	3.60				
3	6.31	6.23-99.99-99.99-99.99-99.99	6.27	1.015E+04	2.781E+03	3.65				
4	7.31	7.52-99.99-99.99-99.99-99.99	7.42	1.006E+04	2.153E+03	4.67				

Data Set Number = 14

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.20	6.51	1.02	2.19	2.23	5.25	2.21

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.24	5.39-99.99-99.99-99.99-99.99	5.32	1.013E+04	3.406E+03	2.97				
2	6.03	6.16-99.99-99.99-99.99-99.99	6.09	1.020E+04	2.816E+03	3.62				
3	6.30	6.21-99.99-99.99-99.99-99.99	6.26	1.014E+04	2.772E+03	3.66				
4	7.32	7.50-99.99-99.99-99.99-99.99	7.41	1.005E+04	2.146E+03	4.68				

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.85	6.75	1.00	2.23	2.24	5.53	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.68	4.83	99.99	99.99	99.99	99.99	4.76	7.035E+03	2.910E+03	2.42
2	5.32	5.42	99.99	99.99	99.99	99.99	5.37	7.102E+03	2.448E+03	2.90
3	5.51	5.49	99.99	99.99	99.99	99.99	5.50	7.059E+03	2.434E+03	2.90
4	6.68	6.90	99.99	99.99	99.99	99.99	6.79	6.987E+03	1.719E+03	4.07

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.93	6.76	.99	2.22	2.23	5.56	2.23			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.66	4.81	99.99	99.99	99.99	99.99	4.73	7.050E+03	2.938E+03	2.40
2	5.31	5.42	99.99	99.99	99.99	99.99	5.36	7.112E+03	2.452E+03	2.90
3	5.53	5.49	99.99	99.99	99.99	99.99	5.50	7.075E+03	2.430E+03	2.91
4	6.68	6.89	99.99	99.99	99.99	99.99	6.79	7.005E+03	1.723E+03	4.06

Data Set Number = 17

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.55	6.97	.92	2.17	2.20	5.81	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.03	4.15-99.99	99.99-99.99	99.99-99.99	99.99-99.99	4.09	4.158E+03	2.283E+03	1.82	
2	4.49	4.59-99.99	99.99-99.99	99.99-99.99	99.99-99.99	4.54	4.210E+03	1.972E+03	2.14	
3	4.79	4.84-99.99	99.99-99.99	99.99-99.99	99.99-99.99	4.81	4.188E+03	1.834E+03	2.28	
4	5.97	6.18-99.99	99.99-99.99	99.99-99.99	99.99-99.99	6.08	4.143E+03	1.213E+03	3.42	

Data Set Number = 18

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	9.62	7.01	.93	2.16	2.21	5.85	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.05	4.17	99.99	99.99	99.99	99.99	4.12	4.157E+03	2.253E+03	1.85
2	4.49	4.58	99.99	99.99	99.99	99.99	4.53	4.208E+03	1.972E+03	2.13
3	4.78	4.82	99.99	99.99	99.99	99.99	4.80	4.189E+03	1.845E+03	2.27
4	5.00	6.18	99.99	99.99	99.99	99.99	6.09	4.141E+03	1.205E+03	3.43

Data Set Number = 19

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	10.05	6.01	.96	2.18	2.20	6.34	2.19			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	3.60	3.74	99.99	99.99	99.99	99.99	3.67	1.905E+03	1.357E+03	1.40
2	4.02	4.10	99.99	99.99	99.99	99.99	4.06	1.940E+03	1.164E+03	1.67
3	4.45	4.58	99.99	99.99	99.99	99.99	4.52	1.930E+03	9.675E+02	1.99
4	5.32	5.50	99.99	99.99	99.99	99.99	5.41	1.909E+03	6.908E+02	2.76

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
10.08	8.13	.97	2.20	2.21	6.39	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	3.62	3.77	-99.99	-99.99	-99.99	3.70	1.906E+03	1.341E+03	1.42
2	4.04	4.12	-99.99	-99.99	-99.99	4.08	1.941E+03	1.157E+03	1.68
3	4.47	4.62	-99.99	-99.99	-99.99	4.54	1.934E+03	9.609E+02	2.01
4	5.32	5.52	-99.99	-99.99	-99.99	5.42	1.911E+03	6.921E+02	2.76

NOTE: 20 X-Y pairs were stored in plot data file PDFND111

Dist number = 20

File name: DFND112

This data set taken on : 05:03:21:21:51

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.99	5.34	1.63	2.28	2.26	4.99	2.27

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	11.96	12.11	-99.99	-99.99	-99.99	12.03	9.665E+04	1.072E+04	9.01
2	14.79	15.11	-99.99	-99.99	-99.99	14.95	9.674E+04	8.194E+03	11.81
3	15.24	15.66	-99.99	-99.99	-99.99	15.45	9.590E+04	7.873E+03	12.18
4	14.87	14.83	-99.99	-99.99	-99.99	14.85	9.531E+04	8.321E+03	11.45
5	14.95	19.48	-99.99	-99.99	-99.99	17.22	9.543E+04	6.970E+03	13.69

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.9E	5.30	1.69	2.29	2.28	4.96	2.29

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	11.96	11.96	-99.99	-99.99	-99.99	11.96	9.839E+04	1.104E+04	8.92
2	14.82	15.15	-99.99	-99.99	-99.99	14.99	9.848E+04	8.338E+03	11.81
3	15.16	15.55	-99.99	-99.99	-99.99	15.35	9.761E+04	8.098E+03	12.05
4	14.83	14.76	-99.99	-99.99	-99.99	14.80	9.704E+04	8.532E+03	11.37
5	15.04	19.56	-99.99	-99.99	-99.99	17.30	9.712E+04	7.065E+03	13.75

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
8.03	5.24	1.47	2.21	2.18	4.91	2.20

Tube #	Wall Temperatures (Deg C)	Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)				
1	2	3	4	5	6				
1	9.64	9.39	-99.99	-99.99	-99.99	9.52	7.426E+04	1.102E+04	6.74
2	12.03	12.42	-99.99	-99.99	-99.99	12.22	7.432E+04	7.981E+03	9.31
3	12.71	13.05	-99.99	-99.99	-99.99	12.88	7.370E+04	7.487E+03	9.84
4	12.85	12.76	-99.99	-99.99	-99.99	12.80	7.324E+04	7.597E+03	9.64
5	12.92	16.40	-99.99	-99.99	-99.99	14.66	7.328E+04	6.446E+03	11.37

Data Set Number = 4

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	8.02	5.24	1.51	2.20	2.18	4.92	2.19			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	9.67	9.40	99.99	99.99	99.99	99.99	9.53	7.429E+04	1.099E+04	6.76
2	12.04	12.42	99.99	99.99	99.99	99.99	12.23	7.436E+04	7.977E+03	9.32
3	12.72	13.06	99.99	99.99	99.99	99.99	12.89	7.373E+04	7.479E+03	9.86
4	12.79	12.72	99.99	99.99	99.99	99.99	12.75	7.326E+04	7.634E+03	9.60
5	12.80	16.32	99.99	99.99	99.99	99.99	14.56	7.325E+04	6.498E+03	11.27

Data Set Number = 5

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.48	5.40	1.37	2.13	2.11	4.75	2.12			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	8.43	8.08	99.99	99.99	99.99	99.99	8.26	5.180E+04	9.072E+03	5.71
2	10.11	10.41	99.99	99.99	99.99	99.99	10.26	5.188E+04	6.841E+03	7.58
3	10.83	11.05	99.99	99.99	99.99	99.99	10.94	5.146E+04	6.323E+03	8.14
4	11.13	11.11	99.99	99.99	99.99	99.99	11.12	5.112E+04	6.239E+03	8.19
5	11.44	13.75	99.99	99.99	99.99	99.99	12.60	5.112E+04	5.360E+03	9.54

Data Set Number = 6

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.44	5.44	1.20	2.13	2.10	4.70	2.12			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	8.24	7.99	99.99	99.99	99.99	99.99	8.12	5.188E+04	9.310E+03	5.57
2	10.15	10.42	99.99	99.99	99.99	99.99	10.28	5.194E+04	6.825E+03	7.61
3	10.67	11.05	99.99	99.99	99.99	99.99	10.95	5.152E+04	6.313E+03	8.16
4	11.12	11.12	99.99	99.99	99.99	99.99	11.12	5.119E+04	6.248E+03	8.19
5	11.40	13.69	99.99	99.99	99.99	99.99	12.55	5.119E+04	5.394E+03	9.49

Data Set Number = 7

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.29	5.50	1.01	2.13	2.14	4.60	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	7.22	7.11	99.99	99.99	99.99	99.99	7.17	3.378E+04	7.128E+03	4.74
2	8.60	8.84	99.99	99.99	99.99	99.99	8.72	3.386E+04	5.497E+03	6.16
3	9.31	9.42	99.99	99.99	99.99	99.99	9.37	3.360E+04	5.032E+03	6.68
4	9.62	9.72	99.99	99.99	99.99	99.99	9.67	3.336E+04	4.864E+03	6.86
5	10.13	11.39	99.99	99.99	99.99	99.99	10.76	3.334E+04	4.264E+03	7.82

Data Set Number = 8

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav			
	7.28	5.52	1.04	2.13	2.14	4.61	2.13			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	7.24	7.13	99.99	99.99	99.99	99.99	7.19	3.374E+04	7.095E+03	4.76
2	8.65	8.85	99.99	99.99	99.99	99.99	8.75	3.382E+04	5.467E+03	6.19
3	9.33	9.41	99.99	99.99	99.99	99.99	9.37	3.356E+04	5.020E+03	6.68
4	9.60	9.70	99.99	99.99	99.99	99.99	9.65	3.332E+04	4.877E+03	6.83
5	10.17	11.42	99.99	99.99	99.99	99.99	10.80	3.330E+04	4.242E+03	7.85

Data Set Number = 9

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.29	5.65	1.13	2.23	2.27	4.69	2.25			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.43	6.35	99.99	99.99	99.99	99.99	6.39	2.131E+04	5.428E+03	3.93
2	7.50	7.63	99.99	99.99	99.99	99.99	7.57	2.139E+04	4.300E+03	4.97
3	8.14	8.09	99.99	99.99	99.99	99.99	8.11	2.123E+04	3.935E+03	5.40
4	8.33	8.37	99.99	99.99	99.99	99.99	8.35	2.106E+04	3.826E+03	5.50
5	8.91	9.51	99.99	99.99	99.99	99.99	9.21	2.105E+04	3.378E+03	6.23

Data Set Number = 10

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.29	5.66	1.14	2.24	2.27	4.70	2.25			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	6.43	6.37	99.99	99.99	99.99	99.99	6.40	2.130E+04	5.414E+03	3.93
2	7.49	7.61	99.99	99.99	99.99	99.99	7.55	2.138E+04	4.310E+03	4.96
3	8.11	8.06	99.99	99.99	99.99	99.99	8.08	2.122E+04	3.956E+03	5.36
4	8.37	8.38	99.99	99.99	99.99	99.99	8.38	2.105E+04	3.808E+03	5.53
5	8.89	9.51	99.99	99.99	99.99	99.99	9.20	2.105E+04	3.381E+03	6.23

Data Set Number = 11

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidev			
	7.32	5.81	1.01	2.16	2.20	4.71	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	5.49	5.50	99.99	99.99	99.99	99.99	5.49	1.302E+04	4.123E+03	3.16
2	6.39	6.43	99.99	99.99	99.99	99.99	6.41	1.310E+04	3.320E+03	3.95
3	6.74	6.65	99.99	99.99	99.99	99.99	6.70	1.301E+04	3.169E+03	4.11
4	6.92	6.73	99.99	99.99	99.99	99.99	6.83	1.290E+04	3.138E+03	4.11
5	7.77	8.05	99.99	99.99	99.99	99.99	7.91	1.290E+04	2.548E+03	5.06

Data Set Number = 12

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.32	5.83	1.01	2.16	2.20	4.72	2.18			
Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
1	5.49	5.50	99.99	99.99	99.99	99.99	5.49	1.302E+04	4.117E+03	3.16
2	6.39	6.44	99.99	99.99	99.99	99.99	6.41	1.310E+04	3.315E+03	3.95
3	6.75	6.65	99.99	99.99	99.99	99.99	6.71	1.301E+04	3.159E+03	4.12
4	6.92	6.74	99.99	99.99	99.99	99.99	6.83	1.290E+04	3.132E+03	4.12
5	7.78	8.05	99.99	99.99	99.99	99.99	7.91	1.289E+04	2.544E+03	5.07

Data Set Number = 13

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.58	6.10	.97	2.14	2.21	4.88	2.17			
Tube #	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
1	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.87	4.92	99.99	99.99	99.99	99.99	4.89	8.912E+03	3.432E+03	2.60
2	5.61	5.61	99.99	99.99	99.99	99.99	5.61	8.983E+03	2.819E+03	3.19
3	5.67	5.73	99.99	99.99	99.99	99.99	5.80	8.929E+03	2.750E+03	3.25
4	6.15	5.89	99.99	99.99	99.99	99.99	6.01	8.842E+03	2.654E+03	3.33
5	7.12	7.25	99.99	99.99	99.99	99.99	7.18	8.836E+03	2.020E+03	4.37

Data Set Number = 14

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav	
	7.65	6.11	.97	2.13	2.20	4.91	2.17	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	4.86	4.92	-99.99	-99.99	-99.99	4.89	8.862E+03	3.406E+03
2	5.60	5.59	-99.99	-99.99	-99.99	5.60	8.932E+03	2.810E+03
3	5.87	5.73	-99.99	-99.99	-99.99	5.80	8.876E+03	2.728E+03
4	6.13	5.86	-99.99	-99.99	-99.99	6.00	8.797E+03	2.647E+03
5	7.10	7.23	-99.99	-99.99	-99.99	7.17	8.789E+03	2.013E+03

Data Set Number = 15

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav	
	8.13	6.24	.92	2.15	2.15	5.10	2.15	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	4.27	4.35	-99.99	-99.99	-99.99	4.31	5.533E+03	2.680E+03
2	4.76	4.75	-99.99	-99.99	-99.99	4.76	5.590E+03	2.348E+03
3	4.99	4.82	-99.99	-99.99	-99.99	4.91	5.558E+03	2.312E+03
4	5.47	5.09	-99.99	-99.99	-99.99	5.28	5.585E+03	2.079E+03
5	6.38	6.38	-99.99	-99.99	-99.99	6.38	5.501E+03	1.520E+03

Data Set Number = 16

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav	
	8.22	6.27	.92	2.15	2.15	5.14	2.15	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	4.25	4.35	-99.99	-99.99	-99.99	4.30	5.515E+03	2.685E+03
2	4.78	4.76	-99.99	-99.99	-99.99	4.77	5.573E+03	2.331E+03
3	5.01	4.83	-99.99	-99.99	-99.99	4.92	5.546E+03	2.297E+03
4	5.44	5.10	-99.99	-99.99	-99.99	5.27	5.489E+03	2.085E+03
5	6.36	6.39	-99.99	-99.99	-99.99	6.37	5.484E+03	1.520E+03

Data Set Number = 17

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav	
	8.97	6.78	.67	2.19	2.15	5.54	2.18	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	3.76	3.76	-99.99	-99.99	-99.99	3.76	3.087E+03	2.048E+03
2	4.10	4.10	-99.99	-99.99	-99.99	4.10	3.132E+03	1.829E+03
3	4.46	4.27	-99.99	-99.99	-99.99	4.37	3.118E+03	1.682E+03
4	5.09	4.75	-99.99	-99.99	-99.99	4.92	3.091E+03	1.351E+03
5	5.54	5.62	-99.99	-99.99	-99.99	5.58	3.078E+03	1.095E+03

Data Set Number = 18

	Tv1	Tv2	Tv3	Ttd1	Ttd2	Tvav	Ttdav	
	9.04	6.82	.67	2.20	2.16	5.58	2.18	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	3.75	3.77	-99.99	-99.99	-99.99	3.76	3.092E+03	2.053E+03
2	4.10	4.10	-99.99	-99.99	-99.99	4.10	3.138E+03	1.834E+03
3	4.45	4.25	-99.99	-99.99	-99.99	4.35	3.124E+03	1.698E+03
4	5.10	4.73	-99.99	-99.99	-99.99	4.92	3.091E+03	1.259E+03
5	5.52	5.61	-99.99	-99.99	-99.99	5.56	3.087E+03	1.105E+03

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.54	7.70	.86	2.14	2.13	6.03	2.14

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.36	3.39	99.99	99.99	99.99	99.99	3.37	1.548E+03	1.329E+03	1.17
2	3.63	3.66	99.99	99.99	99.99	99.99	3.64	1.579E+03	1.206E+03	1.31
3	4.15	4.13	99.99	99.99	99.99	99.99	4.14	1.574E+03	9.381E+02	1.68
4	4.79	4.83	99.99	99.99	99.99	99.99	4.81	1.555E+03	7.008E+02	2.22
5	4.93	5.06	99.99	99.99	99.99	99.99	4.99	1.552E+03	6.835E+02	2.27

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
9.59	7.86	.83	2.18	2.13	6.09	2.15

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	3.36	3.36	99.99	99.99	99.99	99.99	3.36	1.552E+03	1.364E+03	1.14
2	3.62	3.66	99.99	99.99	99.99	99.99	3.64	1.583E+03	1.226E+03	1.29
3	4.13	4.09	99.99	99.99	99.99	99.99	4.11	1.576E+03	9.671E+02	1.63
4	4.74	4.73	99.99	99.99	99.99	99.99	4.74	1.558E+03	7.304E+02	2.13
5	4.87	5.01	99.99	99.99	99.99	99.99	4.94	1.556E+03	7.052E+02	2.21

NOTE: 20 X-Y pairs were stored in plot data file PDFND112

Dist number = 20  
 File name: DFND113  
 This data set taken on : 05:03:20 07:43

Data Set Number = 1

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.03	4.53	1.78	2.23	2.22	4.05	2.23

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.95	11.89	99.99	99.99	99.99	99.99	11.92	9.493E+04	1.060E+04	8.96
2	15.31	15.48	99.99	99.99	99.99	99.99	15.40	9.498E+04	7.718E+03	12.31
3	15.67	15.57	99.99	99.99	99.99	99.99	15.62	9.421E+04	7.593E+03	12.41
4	14.40	14.03	99.99	99.99	99.99	99.99	14.21	9.366E+04	8.612E+03	10.87
5	14.52	16.90	99.99	99.99	99.99	99.99	16.71	9.370E+04	7.077E+03	13.24

Data Set Number = 2

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.00	4.52	1.79	2.25	2.23	4.04	2.24

Tube #	Wall Temperatures (Deg C)						Tnave (Deg C)	Qdp (W/m <sup>2</sup> )	H (W/m <sup>2</sup> .K)	Thetab (K)
	1	2	3	4	5	6				
1	11.89	11.85	99.99	99.99	99.99	99.99	11.87	9.489E+04	1.067E+04	8.99
2	15.35	15.50	99.99	99.99	99.99	99.99	15.42	9.499E+04	7.711E+03	12.32
3	15.65	15.46	99.99	99.99	99.99	99.99	15.56	9.418E+04	7.640E+03	12.33
4	14.24	12.97	99.99	99.99	99.99	99.99	14.10	9.361E+04	8.706E+03	10.75
5	14.44	15.82	99.99	99.99	99.99	99.99	16.63	9.370E+04	7.128E+03	13.14

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.88	4.61	1.77	2.21	2.19	4.09	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.74	9.95	-99.99	-99.99	-99.99	-99.99	9.84	7.545E+04	1.071E+04	7.04
2	12.15	12.35	-99.99	-99.99	-99.99	-99.99	12.25	7.551E+04	8.099E+03	9.32
3	12.27	12.48	-99.99	-99.99	-99.99	-99.99	12.37	7.486E+04	8.029E+03	9.32
4	11.88	11.77	-99.99	-99.99	-99.99	-99.99	11.82	7.443E+04	8.10E+03	8.64
5	12.10	15.58	-99.99	-99.99	-99.99	-99.99	13.84	7.444E+04	7.067E+03	10.53

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
5.89	4.61	1.76	2.20	2.18	4.09	2.19

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	9.64	9.92	-99.99	-99.99	-99.99	-99.99	9.78	7.545E+04	1.078E+04	7.00
2	12.08	12.34	-99.99	-99.99	-99.99	-99.99	12.21	7.554E+04	8.125E+03	9.30
3	12.27	12.47	-99.99	-99.99	-99.99	-99.99	12.37	7.491E+04	8.026E+03	9.33
4	11.88	11.72	-99.99	-99.99	-99.99	-99.99	11.80	7.444E+04	8.624E+03	8.63
5	12.05	15.55	-99.99	-99.99	-99.99	-99.99	13.80	7.445E+04	7.088E+03	10.50

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.05	5.16	1.74	2.20	2.18	4.32	2.19

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.24	7.45	-99.99	-99.99	-99.99	-99.99	7.34	5.157E+04	1.090E+04	4.73
2	8.88	9.18	-99.99	-99.99	-99.99	-99.99	9.03	5.166E+04	8.217E+03	6.29
3	9.35	9.58	-99.99	-99.99	-99.99	-99.99	9.47	5.124E+04	7.768E+03	6.60
4	9.77	9.74	-99.99	-99.99	-99.99	-99.99	9.75	5.091E+04	7.537E+03	6.75
5	10.15	12.79	-99.99	-99.99	-99.99	-99.99	11.47	5.087E+04	6.896E+03	8.34

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.02	5.19	1.76	2.21	2.19	4.32	2.20

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	7.26	7.48	-99.99	-99.99	-99.99	-99.99	7.37	5.156E+04	1.087E+04	4.74
2	8.88	9.24	-99.99	-99.99	-99.99	-99.99	9.06	5.163E+04	8.190E+03	6.30
3	9.33	9.66	-99.99	-99.99	-99.99	-99.99	9.49	5.123E+04	7.750E+03	6.61
4	9.84	9.65	-99.99	-99.99	-99.99	-99.99	9.75	5.091E+04	7.557E+03	6.74
5	10.28	12.70	-99.99	-99.99	-99.99	-99.99	11.49	5.089E+04	6.890E+03	8.35

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.92	5.54	1.81	2.21	2.21	4.76	2.21

Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	6.10	6.00	-99.99	-99.99	-99.99	-99.99	6.05	3.455E+04	9.778E+03	3.54
2	7.27	7.45	-99.99	-99.99	-99.99	-99.99	7.34	3.467E+04	7.735E+03	4.70
3	7.85	6.07	-99.99	-99.99	-99.99	-99.99	7.96	3.440E+04	6.622E+03	5.19
4	8.51	6.30	-99.99	-99.99	-99.99	-99.99	8.40	3.416E+04	6.200E+03	5.51
5	8.92	10.68	-99.99	-99.99	-99.99	-99.99	9.80	3.413E+04	5.077E+03	6.78

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.93	5.62	1.81	2.23	2.20	4.79	2.22

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	6.00	99.99	99.99	99.99	99.99	99.99	6.00	3.457E+04	9.942E+03	3.48
2	7.23	7.49	99.99	99.99	99.99	99.99	7.36	3.464E+04	7.356E+03	4.71
3	7.85	8.02	99.99	99.99	99.99	99.99	7.93	3.437E+04	6.671E+03	5.15
4	8.48	8.29	99.99	99.99	99.99	99.99	8.39	3.413E+04	6.225E+03	5.48
5	8.95	10.71	99.99	99.99	99.99	99.99	9.83	3.411E+04	5.021E+03	6.79

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.06	5.54	1.47	2.16	2.15	4.69	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.34	5.31	99.99	99.99	99.99	99.99	5.32	2.162E+04	7.300E+03	2.96
2	6.18	6.30	99.99	99.99	99.99	99.99	6.24	2.170E+04	5.789E+03	3.75
3	6.74	6.74	99.99	99.99	99.99	99.99	6.74	2.155E+04	5.226E+03	4.12
4	7.25	7.17	99.99	99.99	99.99	99.99	7.21	2.138E+04	4.792E+03	4.46
5	7.83	8.91	99.99	99.99	99.99	99.99	8.37	2.136E+04	3.866E+03	5.50

Data Set Number = 10

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
7.07	5.52	1.43	2.16	2.14	4.67	2.15

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	5.34	5.29	99.99	99.99	99.99	99.99	5.32	2.159E+04	7.300E+03	2.96
2	6.16	6.30	99.99	99.99	99.99	99.99	6.23	2.167E+04	5.791E+03	3.74
3	6.73	6.75	99.99	99.99	99.99	99.99	6.74	2.152E+04	5.217E+03	4.12
4	7.27	7.14	99.99	99.99	99.99	99.99	7.21	2.135E+04	4.784E+03	4.46
5	7.87	8.66	99.99	99.99	99.99	99.99	8.37	2.133E+04	3.881E+03	5.50

Data Set Number = 11

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.75	5.50	1.15	2.28	2.26	4.47	2.27

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.83	4.71	99.99	99.99	99.99	99.99	4.77	1.351E+04	5.753E+03	2.35
2	5.49	5.50	99.99	99.99	99.99	99.99	5.49	1.359E+04	4.620E+03	2.94
3	6.07	5.98	99.99	99.99	99.99	99.99	6.02	1.351E+04	4.036E+03	3.35
4	6.52	6.49	99.99	99.99	99.99	99.99	6.50	1.339E+04	3.621E+03	3.70
5	6.86	7.41	99.99	99.99	99.99	99.99	7.14	1.337E+04	3.181E+03	4.20

Data Set Number = 12

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
6.73	5.50	1.15	2.32	2.26	4.46	2.29

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	4.86	4.75	99.99	99.99	99.99	99.99	4.80	1.349E+04	5.717E+03	2.36
2	5.49	5.51	99.99	99.99	99.99	99.99	5.50	1.356E+04	4.638E+03	2.92
3	6.10	6.01	99.99	99.99	99.99	99.99	6.05	1.347E+04	4.017E+03	3.35
4	6.55	6.50	99.99	99.99	99.99	99.99	6.52	1.335E+04	3.613E+03	3.70
5	6.87	7.42	99.99	99.99	99.99	99.99	7.14	1.334E+04	3.186E+03	4.19

Data Set Number = 13

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.87	5.57	1.03	2.19	2.18	4.49	2.18			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	4.27	4.23	99.99	99.99	99.99	99.99	4.25	9.027E+03	4.639E+03	1.95
2	4.91	4.86	99.99	99.99	99.99	99.99	4.88	9.097E+03	3.720E+03	2.45
3	5.39	5.22	99.99	99.99	99.99	99.99	5.31	9.041E+03	3.298E+03	2.74
4	5.75	5.65	99.99	99.99	99.99	99.99	5.70	8.958E+03	2.979E+03	3.01
5	6.00	6.30	99.99	99.99	99.99	99.99	6.15	8.946E+03	2.688E+03	3.33

Data Set Number = 14

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	6.86	5.57	1.00	2.16	2.17	4.48	2.16			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	4.25	4.21	99.99	99.99	99.99	99.99	4.23	9.022E+03	4.638E+03	1.95
2	4.88	4.84	99.99	99.99	99.99	99.99	4.86	9.091E+03	3.711E+03	2.45
3	5.36	5.22	99.99	99.99	99.99	99.99	5.29	9.039E+03	3.292E+03	2.75
4	5.76	5.63	99.99	99.99	99.99	99.99	5.69	8.956E+03	2.964E+03	3.02
5	5.88	6.24	99.99	99.99	99.99	99.99	6.06	8.944E+03	2.743E+03	3.26

Data Set Number = 15

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.07	5.68	.87	2.06	2.14	4.54	2.10			
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H	Thetab	
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)	
1	3.84	3.86	99.99	99.99	99.99	99.99	3.85	6.153E+03	3.738E+03	1.65
2	4.39	4.36	99.99	99.99	99.99	99.99	4.37	6.212E+03	3.039E+03	2.04
3	4.76	4.65	99.99	99.99	99.99	99.99	4.70	6.183E+03	2.755E+03	2.24
4	5.08	4.96	99.99	99.99	99.99	99.99	5.02	6.122E+03	2.515E+03	2.43
5	5.20	5.43	99.99	99.99	99.99	99.99	5.31	6.113E+03	2.354E+03	2.60

Data Set Number = 16

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.08	5.70	.86	2.05	2.15	4.54	2.10			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)	(K)
1	3.82	3.85	99.99	99.99	99.99	99.99	3.83	6.153E+03	3.769E+03	1.63
2	4.40	4.36	99.99	99.99	99.99	99.99	4.38	6.217E+03	3.031E+03	2.05
3	4.76	4.66	99.99	99.99	99.99	99.99	4.71	6.183E+03	2.750E+03	2.25
4	5.09	4.95	99.99	99.99	99.99	99.99	5.02	6.118E+03	2.514E+03	2.43
5	5.21	5.43	99.99	99.99	99.99	99.99	5.32	6.112E+03	2.347E+03	2.60

Data Set Number = 17

	Tv1	Tv2	Tv3	Tid1	Tid2	Tvav	Tidav			
	7.30	5.97	.91	2.12	2.23	4.73	2.18			
Tube	Wall Temperatures (Deg C)						Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6 (Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)		(K)
1	3.57	3.58	99.99	99.99	99.99	99.99	3.57	3.723E+03	2.837E+03	1.31
2	3.98	3.96	99.99	99.99	99.99	99.99	3.97	3.774E+03	2.383E+03	1.58
3	4.24	4.15	99.99	99.99	99.99	99.99	4.19	3.757E+03	2.244E+03	1.67
4	4.51	4.42	99.99	99.99	99.99	99.99	4.47	3.715E+03	2.043E+03	1.82
5	4.67	4.83	99.99	99.99	99.99	99.99	4.75	3.710E+03	1.882E+03	1.97

Data Set Number = 18

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav	
	7.36	5.98	.91	2.09	2.23	4.75	2.16	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	3.59	3.60	99.99	99.99	99.99	3.59	3.722E+03	2.754E+03
2	3.99	3.96	99.99	99.99	99.99	3.98	3.773E+03	2.352E+03
3	4.27	4.17	99.99	99.99	99.99	4.22	3.751E+03	2.184E+03
4	4.53	4.43	99.99	99.99	99.99	4.48	3.713E+03	2.005E+03
5	4.70	4.65	99.99	99.99	99.99	4.78	3.710E+03	1.836E+03

Data Set Number = 19

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav	
	7.87	6.17	.77	2.12	2.08	4.94	2.10	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	3.18	3.13	99.99	99.99	99.99	3.15	1.592E+03	1.608E+03
2	3.49	3.45	99.99	99.99	99.99	3.47	1.615E+03	1.373E+03
3	3.70	3.66	99.99	99.99	99.99	3.68	1.607E+03	1.284E+03
4	3.97	3.96	99.99	99.99	99.99	3.96	1.590E+03	1.129E+03
5	3.92	4.07	99.99	99.99	99.99	4.00	1.588E+03	1.210E+03

Data Set Number = 20

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav	
	8.00	6.22	.81	2.12	2.11	5.01	2.12	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	3.21	3.15	99.99	99.99	99.99	3.18	1.581E+03	1.586E+03
2	3.51	3.47	99.99	99.99	99.99	3.49	1.613E+03	1.371E+03
3	3.69	3.64	99.99	99.99	99.99	3.66	1.607E+03	1.313E+03
4	3.94	3.97	99.99	99.99	99.99	3.96	1.590E+03	1.145E+03
5	3.98	4.12	99.99	99.99	99.99	4.05	1.586E+03	1.174E+03

NOTE: 20 X-Y pairs were stored in plot data file PDFND113

Dist number = 20

File name: DFND114

This data set taken on : 05:04:10:41:40

Data Set Number = 1

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav	
	13.31	11.32	1.16	2.15	2.15	8.50	2.15	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	15.77	14.84	99.99	99.99	99.99	15.31	9.907E+04	7.995E+03

Data Set Number = 2

	Tv1	Tv2	Tv3	T1d1	T1d2	Tvav	T1dav	
	13.25	11.30	1.16	2.13	2.13	8.57	2.13	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	(Deg C)	(W/m <sup>2</sup> )	(W/m <sup>2</sup> .K)
1	15.89	14.96	99.99	99.99	99.99	15.43	9.887E+04	7.893E+03

Data Set Number = 3

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.93	10.93	1.17	2.12	2.11	8.34	2.11

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	13.45	13.16	99.99	99.99	99.99	99.99	13.31	7.876E+04	7.450E+03	10.57

Data Set Number = 4

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.90	10.92	1.17	2.12	2.12	8.33	2.12

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	13.70	13.38	99.99	99.99	99.99	99.99	13.54	7.878E+04	7.294E+03	10.80

Data Set Number = 5

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.87	10.79	1.31	2.26	2.26	8.32	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	11.01	10.97	99.99	99.99	99.99	99.99	10.99	5.557E+04	6.713E+03	8.28

Data Set Number = 6

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.86	10.79	1.29	2.27	2.26	8.32	2.26

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	10.88	11.05	99.99	99.99	99.99	99.99	10.97	5.561E+04	6.744E+03	8.25

Data Set Number = 7

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.89	10.76	1.26	2.25	2.23	8.30	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.45	9.48	99.99	99.99	99.99	99.99	9.46	3.746E+04	5.431E+03	6.90

Data Set Number = 8

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
12.88	10.78	1.26	2.24	2.23	8.31	2.24

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	9.48	9.34	99.99	99.99	99.99	99.99	9.41	3.748E+04	5.475E+03	6.85

Data Set Number = 9

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.03	10.91	1.20	2.26	2.25	8.38	2.25

Tube #	1	2	3	4	5	6	Tnave (Deg C)	Qdp (W/m^2)	H (W/m^2.K)	Thetab (K)
1	8.36	8.13	99.99	99.99	99.99	99.99	8.24	2.402E+04	4.171E+03	5.76

Data Set Number = 10

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.07	10.91	1.17	2.24	2.23	8.39	2.24	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	8.31	8.13-99.99-99.99-99.99-99.99				8.22	2.403E+04	4.177E+03
								5.75

Data Set Number = 11

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.72	12.43	1.18	2.27	2.26	9.11	2.26	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	7.22	7.27-99.99-99.99-99.99-99.99				7.24	1.508E+04	3.133E+03
								4.81

Data Set Number = 12

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.72	12.48	1.18	2.25	2.24	9.13	2.25	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	7.22	7.24-99.99-99.99-99.99-99.99				7.23	1.510E+04	3.135E+03
								4.82

Data Set Number = 13

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.82	12.76	1.17	2.27	2.26	9.25	2.26	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.75	6.88-99.99-99.99-99.99-99.99				6.81	1.017E+04	2.302E+03
								4.42

Data Set Number = 14

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.83	12.80	1.18	2.27	2.27	9.27	2.27	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.74	6.87-99.99-99.99-99.99-99.99				6.81	1.016E+04	2.307E+03
								4.40

Data Set Number = 15

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.88	12.99	1.12	2.28	2.29	9.33	2.28	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.26	6.37-99.99-99.99-99.99-99.99				6.32	7.063E+03	1.800E+03
								3.92

Data Set Number = 16

	Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav	
	13.87	13.00	1.11	2.27	2.28	9.33	2.28	
Tube	Wall Temperatures (Deg C)					Tnave	Qdp	H
#	1	2	3	4	5	6 (Deg C)	(W/m^2)	(W/m^2.K)
1	6.24	6.36-99.99-99.99-99.99-99.99				6.30	7.053E+03	1.801E+03
								3.92

Data Set Number = 17

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.88	13.06	.95	2.14	2.15	9.30	2.15

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.55	5.65	99.99	99.99	99.99	99.99	5.60	4.076E+03	1.211E+03	3.37

Data Set Number = 18

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.87	13.05	1.00	2.15	2.13	9.31	2.14

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	5.65	5.80	99.99	99.99	99.99	99.99	5.73	4.067E+03	1.162E+03	3.50

Data Set Number = 19

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.88	13.10	.95	2.20	2.23	9.31	2.22

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.82	4.95	99.99	99.99	99.99	99.99	4.89	1.623E+03	6.236E+02	2.60

Data Set Number = 20

Tv1	Tv2	Tv3	Tld1	Tld2	Tvav	Tldav
13.89	13.10	.93	2.20	2.23	9.31	2.22

Tube	Wall	Temperatures (Deg C)					Tnave	Qdp	H	Thetab
#	1	2	3	4	5	6	(Deg C)	(W/m^2)	(W/m^2.K)	(K)
1	4.85	4.96	99.99	99.99	99.99	99.99	4.91	1.616E+03	6.166E+02	2.62

NOTE: 20 X-Y pairs were stored in plot data file PDFND114

### LIST OF REFERENCES

1. Helmick, R.L., Unkel, B.G., Cromis, R.A., and Hershey, A.L., "Development of an Advanced Air Conditioning Plant for DDG-51 Class Ships," Naval Engineer's Journal, pp. 112-123, May 1987.
2. Rohsenow, W.M. et al., Annual Review of Fluid Mechanics, Vol. 3, Annual Reviews Inc., 1971.
3. Morgan, V.T., "The Overall Convection Heat Transfer from Smooth Circular Cylinders," Advances in Heat Transfer, Academic Press, New York, pp. 199-264, 1975.
4. Churchill, S.W., and Chu, H.H.S., "Correlating Relations for Laminar and Turbulent Free Convection from a Horizontal Cylinder," International Journal Heat Mass Transfer, Vol. 18, pp. 1049-1070, 1975.
5. Rohsenow, W.M., "A Method of Correlating Heat Transfer Data for Surface Boiling of Liquids," ASME 74, pp. 969-976, 1952.
6. Davis, E.J. and Anderson, G.H., "The Incipience of Nucleate Boiling on Forced Convection Flow," American Institute of Chemical Engineers Journal, Vol. 12, No. 4, pp. 774-776, 1966.
7. Bergles, A.E., "Fundamentals of Boiling and Evaporation," Two Phase Flow Heat Exchangers, Kluwer Academic Press, Dordrecht/Boston/London, pp. 159-200, 1987.
8. Han, C.Y. and Griffith, P., "The Mechanism of Heat Transfer in Nucleate Pool Boiling-Part I, Bubble Initiation, Growth and Departure," International Journal of Heat Transfer, Vol. 8, pp. 887-904, 1965.
9. Wanniarachchi, A.S., Sawyer, L.M., and Marto, P.J., "Effect of Oil on Pool-Boiling Performance of R-114 from Enhanced Surfaces," in Joint ASME/JSME Conference in Thermal Engineering, Hawaii, March 1987.
10. Murphy, T.J., Pool Boiling of R-114/Oil Mixtures from Single Tube and Tube Bundles, Master's Thesis, Naval Postgraduate School, Monterey, California, September 1987.

11. Henrici, H. and Hesse, G., "Untersuchungen über den Warmesebergang beim Verdampfer von R-114 und R-114-01-Gemischen an Einem Horizontalen Glattrohr," Kaltechnik Klimatisierung, Vol. 23, pp. 54-58, 1971.
12. Sauere, H.J., Davidson, G.W., and Chongrungreong, S., "Nucleate Boiling of Refrigeration-Oil Mixtures from Finned Tubing," in Joint ASME/AICHE National Heat Transfer Conference, Orlando, Florida, 1980.
13. Mori, S., Sakitani, K. and Isaji, A., "Experimentelle Forschung Über Wärmeübertragung Eines Überfluteten Verdampfers," Reito, Vol. 50, pp. 1-6, 1975.
14. Baustian, J., Pate, M., and Bergles, A., "Properties of Oil-Refrigerant Liquid Mixtures with Applications to Oil Concentration Measurement," ASHRAE Transactions, Vol. 92, Part I, pp. 74-92, 1986.
15. Fujita, Y., Ohta, H., and Hidaka, S. and Nishikawa, K., "Nucleate Boiling Heat Transfer on Horizontal Tubes in Bundles," Eighth International Heat Transfer Conference, Vol. 5, pp. 2131-2136, 1986.
16. Wallner, R., "Heat Transfer in Flooded Shell and Tube Evaporators, in Fifth International Heat Transfer Conference, Tokyo, Vol. 5, pp. 214-217, 1974.
17. Hensen, M.K. and Hsu, J.T., "A Parametric Study of Boiling Heat Transfer in a Tube Bundle," Journal of Heat Transfer, Paper No. 86-F-398, 1986.
18. Marsters, G.F., "Arrays of Heated Horizontal Cylinders in Natural Convection," International Journal of Heat Mass Transfer, Vol. 15, pp. 921-933, 1971.
19. Gebhart, B., Heat Transfer, Second Edition, McGraw Hill, New York, 1971.
20. Hilpert, R., Forsch. Geb. Ingenieurwes, 4, p. 215, 1933.
21. Payvar, P., "Analysis of Performance of Full Bundle Submerged Boilers," ASME HTD, Vol. 44, pp. 11-18, 1985.
22. Hahne, E. and Muller, J., "Boiling on a Finned Tube and a Finned Tube Bundle," International Journal of Heat and Mass Transfer, Vol. 26, No. 6, pp. 849-859, 1983.

23. Palen, J.W., Taborek, J. and Yilmaz, S., "Comments to the Application of Enhanced Boiling Surfaces in Tube Bundles," Evaporation and Condensation, pp. 193-203, 1983.
24. Webb, R.L., Choi, K-D, Apparao, T.R., "A Theoretical Model for Prediction of the Heat Load in Flooded Refrigerant Evaporators," to be published in ASHRAE Transactions, Vol. 95, Pt. 1, 1989.
25. Zebroski, D., Condensation Heat-Transfer Measurements of Refrigerants on Externally Enhanced Tubes, Master's Thesis, Naval Postgraduate School, Monterey, California, June 1987.
26. Mabrey, B., Condensation of Refrigerants on Small Tube Bundles, Master's Thesis, Naval Postgraduate School, Monterey, California, December 1988.
27. Freon Product Information, "Freon" Fluorocarbon Properties and Applications, by DuPont, p. 4, 1975.
28. Bergles, A.E. and Chyu, M.C., "Characteristics of Nucleate Pool Boiling from Porous Metallic Coatings," Advances in Enhanced Heat Transfer ASME, pp. 232-245, 1981.
29. Lepere, J.L., Nucleate Pool Boiling Behavior of R-114 from a Structured Surface, Master's Thesis, Naval Postgraduate School, Monterey, California, December 1980.
30. Reilly, J.T., The Influence of Oil Contamination on Nucleate Pool Boiling Behavior of R-114 from a Structured Surface, Master's Thesis, Naval Postgraduate School, Monterey, California, March 1985.
31. Stephan, K. and Mitrovic, J., "Heat Transfer in Natural Convective Boiling of Refrigerant-Oil Mixtures," ASME Publication Advances in Enhanced Heat Transfer, pp. 73-87, 1982.
32. Pulido, R.J., Nucleate Pool Boiling Characteristics of GEWA-T Finned Surfaces in Freon-113, Master's Thesis, Naval Postgraduate School, Monterey, California, September 1984.
33. Kline, S.J., and McClintock, F.A., "Describing Uncertainties in Single Sample Experiments," Mechanical Engineering, p. 3, 1953.

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